

# EXHIBIT 1

**UNITED STATES DISTRICT COURT  
WESTERN DISTRICT OF TEXAS  
WACO DIVISION**

NATIONAL STEEL CAR LIMITED,  
a Canadian corporation,

Plaintiff,

vs.

THE GREENBRIER COMPANIES, INC.,

Defendant.

Case No. 6:19-cv-00721-ADA

**DEFENDANT THE GREENBRIER COMPANIES, INC.'S PRELIMINARY  
INVALIDITY CONTENTIONS**

Pursuant to the Scheduling Order (ECF No. 29), Defendant The Greenbrier Companies, Inc. ("Greenbrier") hereby provides its Preliminary Invalidity Contentions for the asserted claims of U.S. Patent No. 7,434,519 ("the '519 patent") and U.S. Patent No. 7,878,125 ("the '125 patent") (the "Asserted Patents").

Plaintiff National Steel Car Limited's ("NSC's") Preliminary Infringement Contentions allege that the accused products infringe "at least claims 1–4, 8, 9, 11–16, 18, 19, and 22–25 of the '519 patent and claims 1, 11, 15, 16, 18, and 19 of the '125 patent." See NSC's Revised Prelim. Infring. Contentions at 2. NSC's infringement charts are limited to claims 1–4, 8, 9, 11–16, 18, 19, and 22–25 of the '519 patent and claims 1, 11, 15, 16, 18, and 19 of the '125 patent (the "Asserted Claims"). Accordingly, Greenbrier's Preliminary Invalidity Contentions are directed to only the Asserted Claims pursuant to the Scheduling Order.

Greenbrier's discovery and investigation in connection with this action is ongoing, and thus, these Preliminary Invalidity Contentions are based upon information obtained to date. To

the extent Greenbrier obtains additional information (for example, other third party prior art or prior art material in NSC's possession from *National Steel Car Limited v. FreightCar America, Inc.*, 15-cv-3418 (N.D. Ill.)), or NSC modifies, amends, or supplements its Preliminary Infringement Contentions, Greenbrier reserves the right to modify, amend, or supplement its Preliminary Invalidity Contentions. Greenbrier further reserves the right to modify, amend, or supplement these Preliminary Invalidity Contentions in conjunction with claim construction exchanges, submissions and proceedings, and otherwise in accordance with the Scheduling Order.

Greenbrier's Preliminary Invalidity Contentions, including the accompanying claim charts, are at times based on NSC's apparent interpretation of the Asserted Claims as expressed in its Preliminary Infringement Contentions, with which Greenbrier reserves all right to disagree. Greenbrier's Preliminary Invalidity Contentions, including the accompanying claim charts, are also based on Greenbrier's understanding of NSC's Preliminary Infringement Contentions, which lack specificity in many respects, including at least as to 7100 Woodchip gondola cars. Nothing in these Preliminary Invalidity Contentions should be construed to adopt or waive any position with respect to claim construction, the doctrine of equivalents, or non-infringement.

## **I. Prior Art Disclosing the Limitations of the Asserted Claims**

### **A. Identification of the Prior Art References**

Greenbrier presently identifies the following prior art references that anticipate or renders obvious (either alone or in combination) one or more Asserted Claims of the Asserted Patents:

<b>Prior Art: Known/Used/Sold/Offered for Sale</b>	<b>Known/Used/Sold/Offered for Sale No Later Than</b>	<b>Referred to Herein As</b>
Brandenburg V-Bottom Gondola (including BISX 30900 – 30949 series)	2001	Brandenburg V-Bottom
Brandenburg Flat-Bottom Gondola	1998–1999	Brandenburg Flat-Bottom
Burlington Northern Woodchip Gondola (including BN 587500 – 587699 series)	1981	BN Woodchip

Southern Woodchip Gondola (including Series SOU 139725-139874)	1970	Southern Woodchip
Ebenezer Highside Gondola (including REGX 6800 series)	2004	Ebenezer
Thrall Gondola (including RECX 2002–2124, 1001, 1002 series)	1981	Thrall
EWS Monster Box Gondola (including MBAs, MCAs, MDAs, MOAs)	1998	EWS
Atchison, Topeka and Santa Fe Railway Ga-6 Gondola (including AAR 170000–170299 series)	1940s	ATSF-Ga-6
Atchison, Topeka and Santa Fe Railway Ga-49/53 Gondola (including AAR 176000–176199 series)	1940s	ATSF-Ga-49/53
<b>Prior Art: Patents/Publications</b>	<b>Date Filed/Issued/Published</b>	<b>Referred to Herein As</b>
U.S. Patent No. 2,859,709 to Flowers	Issued: 11/11/1958	Flowers
U.S. Patent No. 2,242,727 to Meyer	Issued: 05/20/1941	Meyer
U.S. Patent Publication No. 2005/0087097, later issued as U.S. Patent No. 6,978,720 to Johnson	Filed: 10/28/2003 Published: 04/28/2005 Issued: 12/27/2005	Johnson
U.S. Patent No. 710,177 to Bellows	Issued: 09/30/1902	Bellows
U.S. Patent No. 5,626,083 to Saxton	Issued: 05/06/1997	Saxton 083
U.S. Patent No. 5,758,584 to Saxton	Issued: 06/02/1998	Saxton 584
John H. White, Jr., The American Railroad Freight Car (John Hopkins)	Published: 1993	ARFC-Pennock
Anthony W. Thompson, Southern Pacific Freight Cars, Volume 1: Gondola and Stock Cars (Signature Press)	Published: 2002	SPFC-G-100-6

Greenbrier incorporates, in full, all admitted prior art and prior art references cited in the ‘519 patent, the ‘125 patent, and any related patents or applications, and their respective prosecution or reexamination histories, whether the related patents or applications were filed in the United States or in a foreign country. Greenbrier also incorporates, in full, all prior art references identified in *National Steel Car Limited v. FreightCar America, Inc.*, 15-cv-3418 (N.D. Ill.). Greenbrier further states that additional prior art references may invalidate the Asserted Claims if NSC amends, modifies, supplements, or otherwise changes its apparent claim constructions and/or infringement contentions, and that additional prior art references may



invalidate the Asserted Claims depending on the Court's claim construction ruling in this case.

### **B. Identification of the Bases for Invalidity**

Greenbrier presently contends that the following prior art references anticipate the following Asserted Claims either expressly, implicitly, or inherently as understood by a person of ordinary skill in the art:

<b>Prior Art</b>	<b>'519 Patent</b>	<b>'125 Patent</b>
Brandenburg V-Bottom	1, 2, 8, 9, 11, 12, 13, 14, 15, 16, 18, 19, 22, 23, 24, 25	1, 11, 15, 16
Brandenburg Flat-Bottom	1, 2, 8, 9, 11, 12, 13, 14, 15, 16, 18, 19, 22, 23, 24, 25	1, 11, 15, 16, 18, 19
BN Woodchip	1, 2, 3, 4, 8, 9, 11, 12, 13, 14, 15, 16, 18, 19, 22, 23, 24, 25	18, 19
Southern Woodchip	1, 2, 3, 8, 9, 11, 12, 13, 14, 22, 23, 24, 25	1, 11, 15, 16, 18, 19
Ebenezer	1, 2, 3, 8, 9, 12, 13, 14, 15, 16, 18, 19, 22, 23, 24, 25	
Thrall	1, 2, 3, 4, 8, 9, 11, 12, 13, 14, 22, 23, 24, 25	18, 19
EWS	1, 2, 3, 4, 8, 9, 12	1, 11
ATSF-Ga-6	1, 2, 3, 4, 8, 9, 11, 12, 13, 14, 15, 16, 18, 19, 22, 23, 24, 25	
ATSF-Ga-49/53	1, 2, 3, 4, 8, 9, 11, 12	
Flowers	1, 2, 8, 9, 11, 12, 13, 14, 22, 23, 24, 25	18, 19
Meyer	1, 2, 3, 8, 9, 11, 12, 13, 14, 22, 23, 24, 25	
Johnson	1, 2, 3, 8, 9, 11, 12, 13, 14, 15, 16, 18, 19, 22, 23, 24, 25	18, 19
Bellows	1, 2, 3, 8, 9, 11, 12, 14	1, 11, 15, 18
ARFC-Pennock	1, 2, 8, 9, 11, 12, 13, 14, 22, 23, 24, 25	18, 19
SPFC-G-100-6	1, 2, 3, 8, 9, 11, 12, 13, 15, 16, 18,	1, 11

In the event NSC contends that any of the above prior art references do not disclose one or

more limitations of an Asserted Claim, Greenbrier presently contends the Asserted Claim would have been obvious to a person of ordinary skill in the art by the time of the alleged invention in view of the same reference.

Additionally, Greenbrier presently contends the following Asserted Claims would have been obvious to a person of ordinary skill in the art by the time of the alleged invention based on the following combinations of prior art references. Each of the “Primary References” below either anticipates or renders obvious the Asserted Claim to which it corresponds. Each of the “Primary References” also may be combined with any other reference(s) listed in the “Primary References” column to render the corresponding claim obvious. Each “Primary Reference” listed in this column also may be combined with any other reference(s) listed in the “Primary References” column and/or with any reference(s) listed in the “Secondary References” column to render the corresponding claim obvious.

<b>‘519 Patent Claims</b>	<b>Primary References</b>	<b>Secondary References</b>
1	Brandenburg V-Bottom Brandenburg Flat Bottom BN Woodchip Southern Woodchip Ebenezer Thrall EWS ATSF-GA-6 ATSF-GA-49/53 Flowers Meyer Johnson Bellows ARFC-Pennock SPFC-G-100-6	Saxton 083 Saxton 584
2	Brandenburg V-Bottom Brandenburg Flat Bottom BN Woodchip Southern Woodchip Ebenezer	Saxton 083 Saxton 584

	Thrall EWS ATSF-GA-6 ATSF-GA-49/53 Flowers Meyer Johnson Bellows ARFC-Pennock SPFC-G-100-6	
3	Brandenburg V-Bottom Brandenburg Flat Bottom BN Woodchip Southern Woodchip Ebenezer Thrall EWS ATSF-GA-6 ATSF-GA-49/53 Flowers Meyer Johnson Bellows ARFC-Pennock SPFC-G-100-6	
4	Brandenburg V-Bottom Brandenburg Flat Bottom BN Woodchip Southern Woodchip Ebenezer Thrall EWS ATSF-GA-6 ATSF-GA-49/53 Flowers Meyer Johnson Bellows ARFC-Pennock SPFC-G-100-6	
8	Brandenburg V-Bottom Brandenburg Flat Bottom BN Woodchip Southern Woodchip Ebenezer Thrall	Saxton 083 Saxton 584

	EWS ATSF-GA-6 ATSF-GA-49/53 Flowers Meyer Johnson Bellows ARFC-Pennock SPFC-G-100-6	
9	Brandenburg V-Bottom Brandenburg Flat Bottom BN Woodchip Southern Woodchip Ebenezer Thrall EWS ATSF-GA-6 ATSF-GA-49/53 Flowers Meyer Johnson Bellows ARFC-Pennock SPFC-G-100-6	Saxton 083 Saxton 584
11	Brandenburg V-Bottom Brandenburg Flat Bottom BN Woodchip Southern Woodchip Ebenezer Thrall EWS ATSF-GA-6 ATSF-GA-49/53 Flowers Meyer Johnson Bellows ARFC-Pennock SPFC-G-100-6	Saxton 083 Saxton 584
12	Brandenburg V-Bottom Brandenburg Flat Bottom BN Woodchip Southern Woodchip Ebenezer Thrall EWS	Saxton 083 Saxton 584

	ATSF-GA-6 ATSF-GA-49/53 Flowers Meyer Johnson Bellows ARFC-Pennock SPFC-G-100-6	
13	Brandenburg V-Bottom Brandenburg Flat Bottom BN Woodchip Southern Woodchip Ebenezer Thrall EWS ATSF-GA-6 ATSF-GA-49/53 Flowers Meyer Johnson Bellows ARFC-Pennock SPFC-G-100-6	Saxton 083 Saxton 584
14	Brandenburg V-Bottom Brandenburg Flat Bottom BN Woodchip Southern Woodchip Ebenezer Thrall EWS ATSF-GA-6 ATSF-GA-49/53 Flowers Meyer Johnson Bellows ARFC-Pennock SPFC-G-100-6	Saxton 083 Saxton 584
15	Brandenburg V-Bottom Brandenburg Flat Bottom BN Woodchip Southern Woodchip Ebenezer Thrall EWS ATSF-GA-6	Saxton 083 Saxton 584

	ATSF-GA-49/53 Flowers Meyer Johnson Bellows ARFC-Pennock SPFC-G-100-6	
16	Brandenburg V-Bottom Brandenburg Flat Bottom BN Woodchip Southern Woodchip Ebenezer Thrall EWS ATSF-GA-6 ATSF-GA-49/53 Flowers Meyer Johnson Bellows ARFC-Pennock SPFC-G-100-6	Saxton 083 Saxton 584
18	Brandenburg V-Bottom Brandenburg Flat Bottom BN Woodchip Southern Woodchip Ebenezer Thrall EWS ATSF-GA-6 ATSF-GA-49/53 Flowers Meyer Johnson Bellows ARFC-Pennock SPFC-G-100-6	Saxton 083 Saxton 584
19	Brandenburg V-Bottom Brandenburg Flat Bottom BN Woodchip Southern Woodchip Ebenezer Thrall EWS ATSF-GA-6 ATSF-GA-49/53	Saxton 083 Saxton 584

	Flowers Meyer Johnson Bellows ARFC-Pennock SPFC-G-100-6	
22	Brandenburg V-Bottom Brandenburg Flat Bottom BN Woodchip Southern Woodchip Ebenezer Thrall EWS ATSF-GA-6 ATSF-GA-49/53 Flowers Meyer Johnson Bellows ARFC-Pennock SPFC-G-100-6	Saxton 083 Saxton 584
23	Brandenburg V-Bottom Brandenburg Flat Bottom BN Woodchip Southern Woodchip Ebenezer Thrall EWS ATSF-GA-6 ATSF-GA-49/53 Flowers Meyer Johnson Bellows ARFC-Pennock SPFC-G-100-6	Saxton 083 Saxton 584
24	Brandenburg V-Bottom Brandenburg Flat Bottom BN Woodchip Southern Woodchip Ebenezer Thrall EWS ATSF-GA-6 ATSF-GA-49/53 Flowers	Saxton 083 Saxton 584

	Meyer Johnson Bellows ARFC-Pennock SPFC-G-100-6	
25	Brandenburg V-Bottom Brandenburg Flat Bottom BN Woodchip Southern Woodchip Ebenezer Thrall EWS ATSF-GA-6 ATSF-GA-49/53 Flowers Meyer Johnson Bellows ARFC-Pennock SPFC-G-100-6	Saxton 083 Saxton 584
<b>'125 Patent</b>	<b>Primary References</b>	<b>Secondary References</b>
1	Brandenburg V-Bottom Brandenburg Flat Bottom BN Woodchip Southern Woodchip Ebenezer Thrall EWS ATSF-GA-6 Flowers Meyer Johnson Bellows ARFC-Pennock SPFC-G-100-6	
11	Brandenburg V-Bottom Brandenburg Flat Bottom BN Woodchip Southern Woodchip Ebenezer Thrall EWS ATSF-GA-6 Flowers Meyer	Saxton 083 Saxton 584



	Johnson Bellows ARFC-Pennock SPFC-G-100-6	
15	Brandenburg V-Bottom Brandenburg Flat Bottom BN Woodchip Southern Woodchip Ebenezer Thrall EWS ATSF-GA-6 Flowers Meyer Johnson Bellows ARFC-Pennock SPFC-G-100-6	Saxton 083 Saxton 584
16	Brandenburg V-Bottom Brandenburg Flat Bottom BN Woodchip Southern Woodchip Ebenezer Thrall EWS ATSF-GA-6 Flowers Meyer Johnson Bellows ARFC-Pennock SPFC-G-100-6	Saxton 083 Saxton 584
18	Brandenburg V-Bottom Brandenburg Flat Bottom BN Woodchip Southern Woodchip Ebenezer Thrall EWS ATSF-GA-6 Flowers Meyer Johnson Bellows ARFC-Pennock SPFC-G-100-6	Saxton 083 Saxton 584

19	Brandenburg V-Bottom Brandenburg Flat Bottom BN Woodchip Southern Woodchip Ebenezer Thrall EWS ATSF-GA-6 Flowers Meyer Johnson Bellows ARFC-Pennock SPFC-G-100-6	Saxton 083 Saxton 584
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Pursuant to the Scheduling Order, Greenbrier attaches charts setting forth where in the prior art references it presently contends each element of the Asserted Claims is found, as set forth below. Greenbrier also incorporates the invalidity claim charts served on NSC in *National Steel Car Limited v. FreightCar America, Inc.*, 15-cv-3418 (N.D. Ill.). Where the claim charts cite to a prior art reference for each element or limitation of an Asserted Claim, Greenbrier presently contends that the reference anticipates the Asserted Claim. In the event a limitation is not disclosed in a prior art reference, Greenbrier presently contends, alternatively, that the Asserted Claim is rendered obvious as set forth herein. While Greenbrier has endeavored to identify relevant portions of the prior art references in the claim charts, the cited references may contain other or additional support for particular claim limitations. Greenbrier may also rely on the uncited portions, any documents or statements identified in the cited references, any documents that claim priority to the cited references, any foreign counterparts to the cited references, their file histories (as applicable), any admitted prior art, any knowledge of persons of ordinary skill in the art, or fact and expert testimony/documents not yet in evidence. Where Greenbrier cites to a particular figure in a reference, the citation should be understood to also encompass the caption and description of that figure and any text relating to it. Where Greenbrier cites to particular text referring to a figure,

the citation should be understood to also include the corresponding figure(s) as well. Reference to the “Cover Materials” in Greenbrier’s invalidity claim charts is a reference to the materials herein.

<b>‘519 Patent</b>	
<b>Reference</b>	<b>Exhibit No.</b>
Brandenburg V-Bottom	A-1
Brandenburg Flat-Bottom	A-2
BN Woodchip	A-3
Southern Woodchip	A-4
Ebenezer	A-5
Thrall	A-6
EWS	A-7
ATSF-GA-6	A-8
Flowers	A-9
Meyer	A-10
Johnson	A-11
Bellows	A-12
Saxton 083	A-13
Saxton 584	A-14
ARFC-Pennock	A-15
SPFC-G-100-6	A-16
ATSF-GA-49/53	A-17
<b>‘125 Patent</b>	
<b>Reference</b>	<b>Exhibit No.</b>
Brandenburg V-Bottom	B-1
Brandenburg Flat-Bottom	B-2
BN Woodchip	B-3
Southern Woodchip	B-4
Ebenezer	B-5
Thrall	B-6
EWS	B-7
ATSF-GA-6	B-8
Flowers	B-9
Meyer	B-10
Johnson	B-11
Bellows	B-12
Saxton 083	B-13
Saxton 584	B-14
ARFC-Pennock	B-15
SPFC-G-100-6	B-16

### C. General State of the Art in Railroad Freight Car Design

At the time of filing the patent applications for the Asserted Patents, the named inventors admit there “has long been a desire in the rail road freight carrying industry generally to reduce the weight of freight cars, and to increase the ratio of allowable lading weight to car weight.” ‘519 patent at 1:58–60. A person of ordinary skill in the art would be aware of many ways to reduce the weight of railroad freight cars, such as eliminating certain components, using lighter weight materials, and welding components together. *See, e.g.*, Saxton 584 at 1:17–22 (“Lighter weight in such cars advantageously allows carriage of revenue-bearing cargo while the laden car remains within limits on the maximum loading which can be imposed on the rails. Additionally, a lighter car requires less fuel when being moved unladen.”); U.S. Patent No. 4,637,320 (1987) at 1:52–60 (“Conventional steel gondola railcars of the type mentioned above tend to be unsatisfactory from this standpoint, mainly because they feature designs which tend to sacrifice operating economy, in particular weight savings, in favor of structural integrity.”), 3:24–39 (“Thus, it will be appreciated from the foregoing summary that this invention eliminates shear plates and their attendant reinforcement structure . . . . The gondola railcar according to this invention therefore is significantly lighter in weight than the gondola railcars of the type described above . . . .”), 4:65–5:19 (“Unlike conventional gondola railcars of the type mentioned above, therefor, side sills are excluded from this load path, and shear plates for providing transverse load transmission to and from the side sills are not required.”); U.S. Patent No. 4,331,083 (1979) at 3:56–62 (“All of the above side wall components are rigidly secured together as by welding in order to provide strong but light weight walls 30, 32.”).

To purportedly reduce the weight of freight cars, one of the named inventors testified that

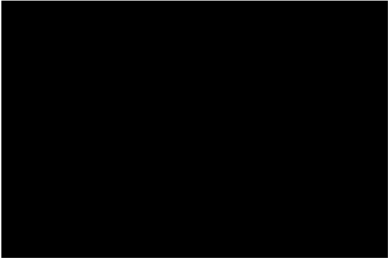
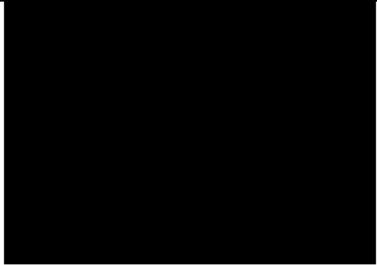
[REDACTED], and that [REDACTED]

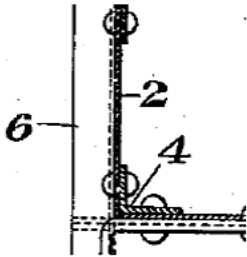
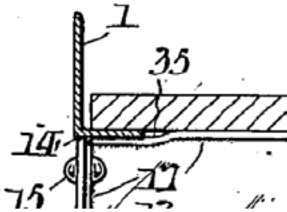


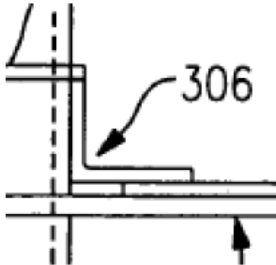
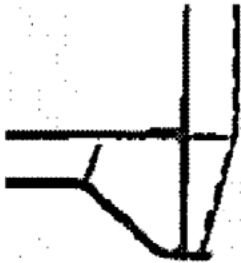
NSC\_GBX00005567, Forbes Dep. 73:22–74:7. Accordingly, most of the Asserted Claims require that the “shear web member” (or “side wall web”) and the “floor panel” (or “deck”) be “directly mated” (or “directly connected”). ‘519 patent, claims 1, 2, 3, 4, 8, 9, 11, 12, 13, 14, 15, 16, 18, 19, 22, 25; ‘125 patent, claims 18, 19; *see also* ‘125 patent, claims 11, 15 (requiring “said web” to be “welded directly” to “said deck”).

This type of direct mating or connection was well-known in the prior art at the time of the alleged invention, particularly in view of NSC’s apparent interpretation of the construction of the Asserted Claims as expressed in its Preliminary Infringement Contentions. As the named inventors admit, traditional gondola cars have had side beams with a top chord, side sill, and vertical web extending between the top chord and the side sill. ‘519 patent at 1:21–24. The side sill “may include a lengthwise running member that defines the lower bounding member of the side beam of the car,” and may “run substantially the entire length of the side beam, and may function to define the lower flange of the side beam.” *Id.* at 1:36–41. The side sill may be a closed hollow section or may be in the shape of an angle iron. *Id.* at 1:50–52.

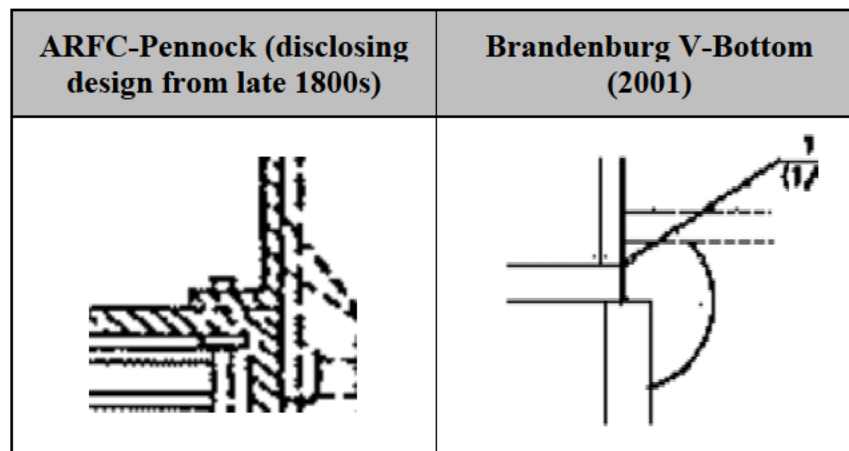
Here, NSC’s infringement allegations against Greenbrier are largely based on NSC’s contention that the alleged “shear web member” (or “side wall web”) and the alleged “floor panel” (or “deck”) are “directly mated” (or “directly connected”) in Greenbrier’s accused cars via an angle iron side sill. As shown below, however, Greenbrier’s accused cars employ the same angle iron side sill assembly that has long been practiced in the prior art for over a century, such as in the BN Woodchip gondola designed by a company acquired by Greenbrier. Tellingly, one of the named inventors of the Asserted Patents admits [REDACTED]

NSC\_GBX00005590, Forbes Dep. at 167:6–18.

<b>ACCUSED CARS</b>	
<b>Accused 6400cf Waste Gondola</b>	<b>Accused 7100cf Woodchip Gondola</b>
	

<b>PRIOR ART</b>	
<b>Bellows (issued 1902)</b>	<b>Meyer (issued 1941)</b>
	
<b>Thrall Gondola (1981)</b>	<b>BN Woodchip (1981)</b>
	
<b>Johnson (filed 2003)</b>	<b>Ebenezer (2004)</b>
	

Other examples in the prior art disclosing a “shear web member” (or “side wall web”) and a “floor panel” (or “deck”) that are “directly mated” (or “directly connected”) are shown below. For example, as disclosed in ARFC, a rail car design from over a century ago used a riveted connection to directly mate or connect the “shear web member” (or “side wall web”) and a “floor panel” (or “deck”). *See* Exhibits A-14, B-14. Another rail car design from approximately twenty years ago used welded connections to directly mate or connect the “shear web member” (or “side wall web”) and a “floor panel” (or “deck”). *See* Exhibits A-1, B-1.



#### **D. General Reasons to Modify, Extend, or Combine the Prior Art References**

To the extent any of the Asserted Claims are not invalid as anticipated by the prior art, they are invalid under § 103 because any alleged “differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art.”

The Supreme Court set forth many rationales for combining references, among which one exemplary “principal reason” for declining to allow patents for what is obvious: a “patent for a combination which only unites old elements with no change in their respective functions . . . obviously withdraws what already is known into the field of its monopoly and diminishes the resources available to skillful men.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 416 (2007)

(quoting *Great Atl. & Pac. Tea Co. v. Supermarket Equip. Corp.*, 340 U.S. 147, 152–53 (1950)).

To that end, the “combination of familiar elements according to known methods is likely to be obvious when it does not more than yield predictable results.” *Id.*

Thus, “[w]hen a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, §103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious. . . .” *Id.*

A person of skill in the art would have been motivated to combine each of the above prior art references based on the rationales the United States Supreme Court articulated in *KSR International Co. v. Teleflex Inc.*, 127 U.S. 1727 (2007). These rationales include:

- Combining prior art elements according to known methods to yield predictable results;
- Simple substitution of one known element for another to obtain predictable results;
- Use of known technique to improve similar devices (methods, or products) in the same way;
- Applying a known technique to a known device (method, or product) ready for improvement to yield predictable results;
- “Obvious to try”—choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success;
- Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces if the variations would have been predictable to one of ordinary skill in the art; and
- Some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior



art reference teachings to arrive at the claimed invention.

Here, for example, as evidenced by at least the prior art references, market forces prompted a prior gondola car having a floor panel directly mated to a shear web member, cross member webs, and center sill webs. Likewise, as evidenced by at least the prior art references, market forces prompted a prior gondola car having a web extension with broadening wings on either side that is in web continuity with an upstanding web. The above prior art references disclose such designs, and, accordingly, one of skill in the art would have been motivated to combine or modify the references as identified in the combinations above.

Additionally, design constraints offered a limited number of means to connect the floor panel to a shear web member, cross member webs, and center sill webs. Thus, one of skill in the art would have thought to combine references that described known solutions. Accordingly, one of skill in the art would have been motivated to combine the references as identified in each of the combinations above.

While not necessary, a motivation to combine may also be found in the references themselves. One of skill in the art would be motivated to combine a reference that refers to, or otherwise explicitly invites combination with, another reference. Many of the references cited herein have such an explicit invitation to combine, which would cause one of skill in the art to combine any such references.

The above-identified examples of combinations are given merely to illustrate various motivations to combine and are not intended to provide an exhaustive list of every possible combination to which the motivation may apply. Nor is such a list required by the Scheduling Order. Greenbrier therefore reserves its right to contend that the above-described motivations to combine apply to other combinations.

**II. Limitations that are Indefinite or Lack Written Description Under § 112**

Pursuant to the Scheduling Order, Greenbrier contends the following limitations are indefinite or lack written description under 35 U.S.C. § 112:

<b>Limitation</b>	<b>Claim</b>
side sills	'519 patent, claims 12 and 16
web continuity	'125 patent, claim 1
side sill	'125 patent, claim 11

**III. Document Production Pursuant to the Scheduling Order**

Pursuant to the Scheduling Order (ECF No. 29), Greenbrier is producing the following to NSC: (1) the prior art referenced in Greenbrier's invalidity contentions,<sup>1</sup> (2) technical documents sufficient to show the operation of the accused products, and (3) summary sales information for the accused products.

Dated: June 1, 2020

Respectfully submitted,  
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<sup>1</sup> Greenbrier's invalidity contentions are based in part on arguments and other publicly-available material proffered in *National Steel Car Limited v. FreightCar America, Inc.*, 15-cv-3418 (N.D. Ill). Greenbrier reserves the right to amend and/or supplement its invalidity contentions based on further evidence developed during the course of this action, and will supplement its production as it obtains additional prior art pursuant to the Scheduling Order.

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**CERTIFICATE OF SERVICE**

I hereby certify that a copy of the foregoing document is being served on the following counsel of record via electronic transmission on June 1, 2020.

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By: /s/ Audra C. Eidem Heinze

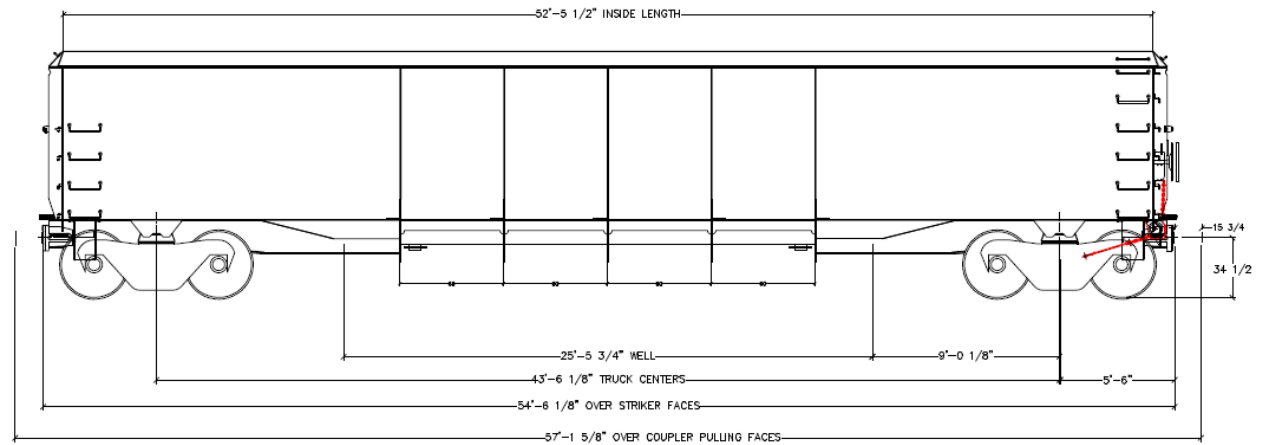
# EXHIBIT A-1

**EXHIBIT A-1****Invalidity Chart for U.S. Patent No. 7,434,519 over the Brandenburg V-Bottom Gondola (Series BISX 30900 – 30949) <sup>1</sup>****(“Brandenburg V-Bottom”)**

Brandenburg V-Bottom is prior art under at least 35 U.S.C. § 102(a) and § 102(b) because it was known or used by others in the United States, in public use in the United States, and/or on sale in the United States at least as early as February 2001.

<b>Claims of U.S. Patent No. 7,434,519</b>		<b>Corresponding Disclosure</b>
1.	A rail road gondola car comprising:	<p>To the extent the preamble is a limitation, Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, Brandenburg V-Bottom is a railroad gondola car.</p>  <p>GRNBR0001699.</p>

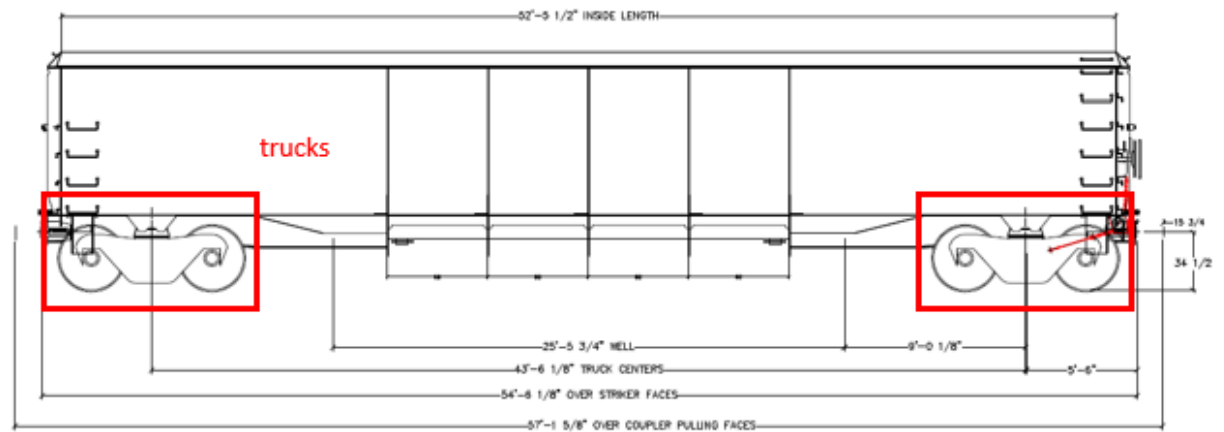
<sup>1</sup> This chart is based in part on arguments and other publicly-available material proffered in *National Steel Car Limited v. FreightCar America, Inc.*, 15-cv-3418 (N.D. Ill.). Greenbrier reserves the right to amend and/or supplement this chart based on further evidence developed.




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[1a] a gondola car body carried by railroad car trucks for rolling motion along rail road tracks;

Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, Brandenburg V-Bottom is a gondola car carried by railroad car trucks for rolling motion along rail road tracks.



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[1b]	said gondola car body having a longitudinal centerline;	<p>Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, Brandenburg V-Bottom car body has a longitudinal centerline:</p>  <p>GRNBR0001709.</p>
[1c]	said gondola car body having a floor and a wall structure standing upwardly of said floor,	<p>Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, Brandenburg V-Bottom car body has a floor and a wall structure standing upwardly of said floor:</p>






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Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Brandenburg V-Bottom must be found to meet this limitation for purposes of invalidity.

To the extent that Brandenburg V-Bottom does not disclose a "gondola car body having a floor and a wall structure standing upwardly of said floor," it would have been obvious to a PHOSITA to combine and/or modify Brandenburg V-Bottom with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including the claimed "gondola car body having a floor and a wall structure standing upwardly of said floor."



[1d]	said floor and said wall structure defining a lading receptacle;	<p>Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, the floor and wall structure of Brandenburg V-Bottom define a lading receptacle:</p>  <p>GRNBR0001709.</p>
[1e]	said floor including at least one floor panel;	<p>Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, the floor of Brandenburg V-Bottom includes at least one floor panel.</p>




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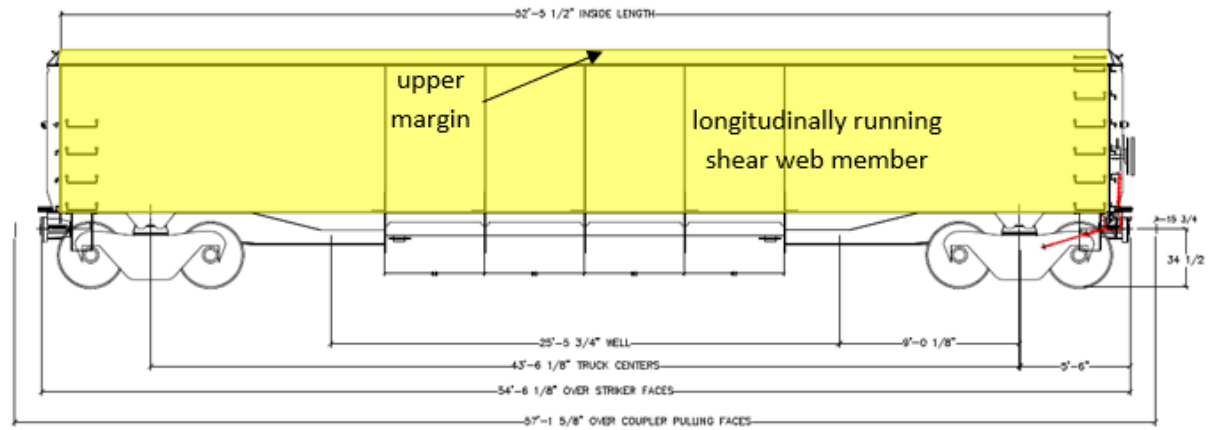
Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Brandenburg V-Bottom must be found to meet this limitation for purposes of invalidity.

[1f]	said gondola car body including a pair of lengthwise running side beams, said side beams defining portions of said wall structure;	Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, Brandenburg V-Bottom car body includes a pair of lengthwise running side beams, said side beams defining portions of said wall structure:
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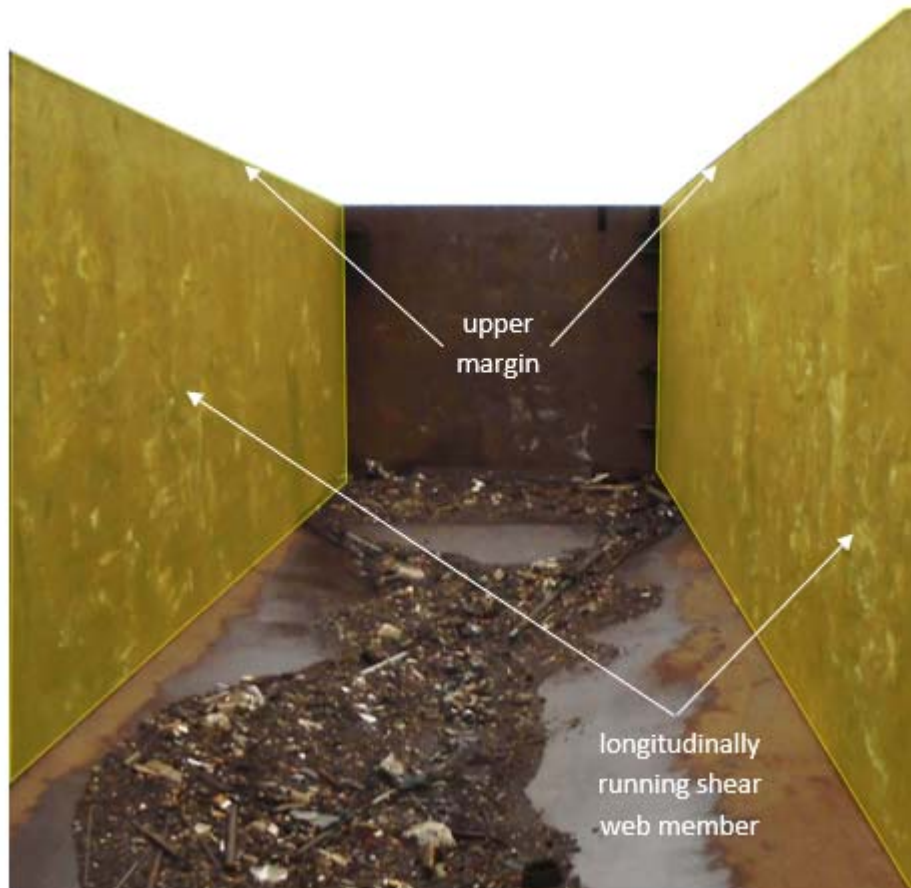


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		 <p>side beams</p> <p>wall structure</p> <p>GRNBR0001709.</p>
[1g]	said side beams each having an upper margin, and a longitudinally running shear web member extending predominantly downwardly of said upper margin	<p>Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, the side beams of Brandenburg V-Bottom each have an upper margin, and a longitudinally running shear web member extending predominantly downwardly of said upper margin:</p>



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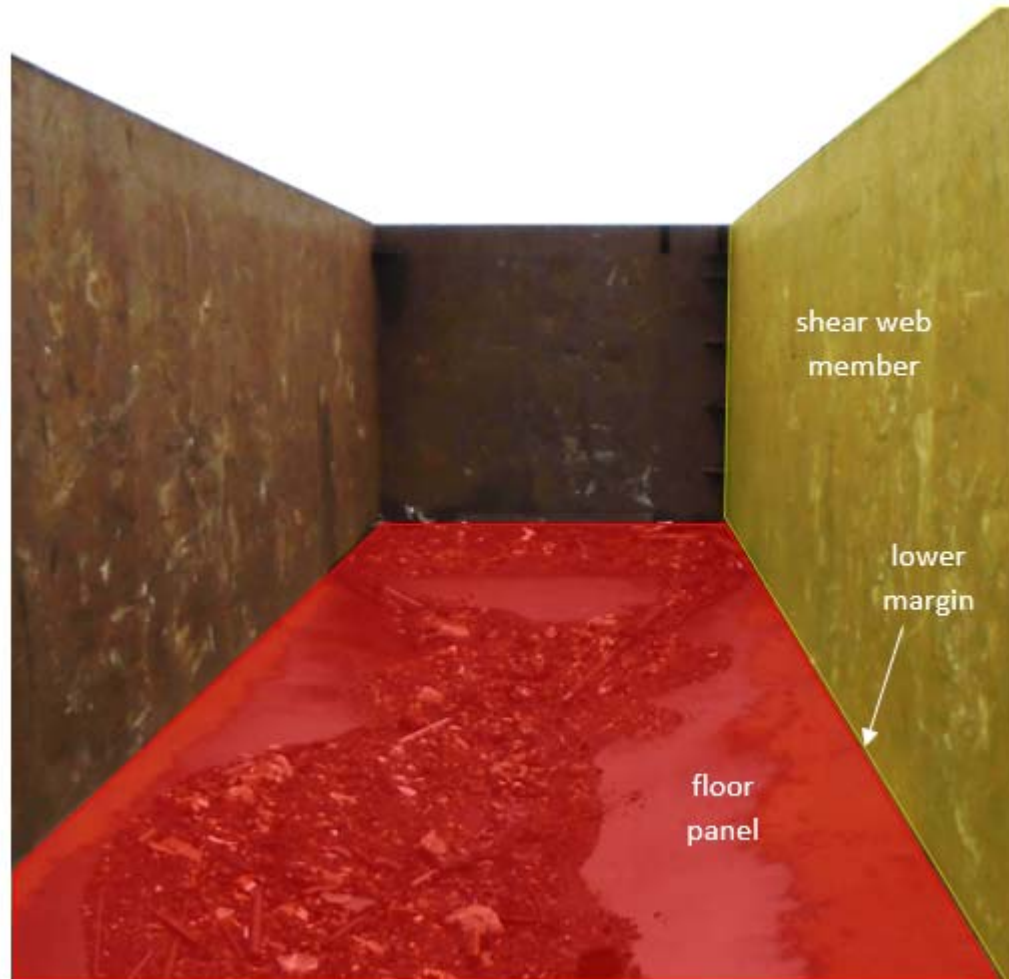
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Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Brandenburg V-Bottom must be found to meet this limitation for purposes of invalidity.

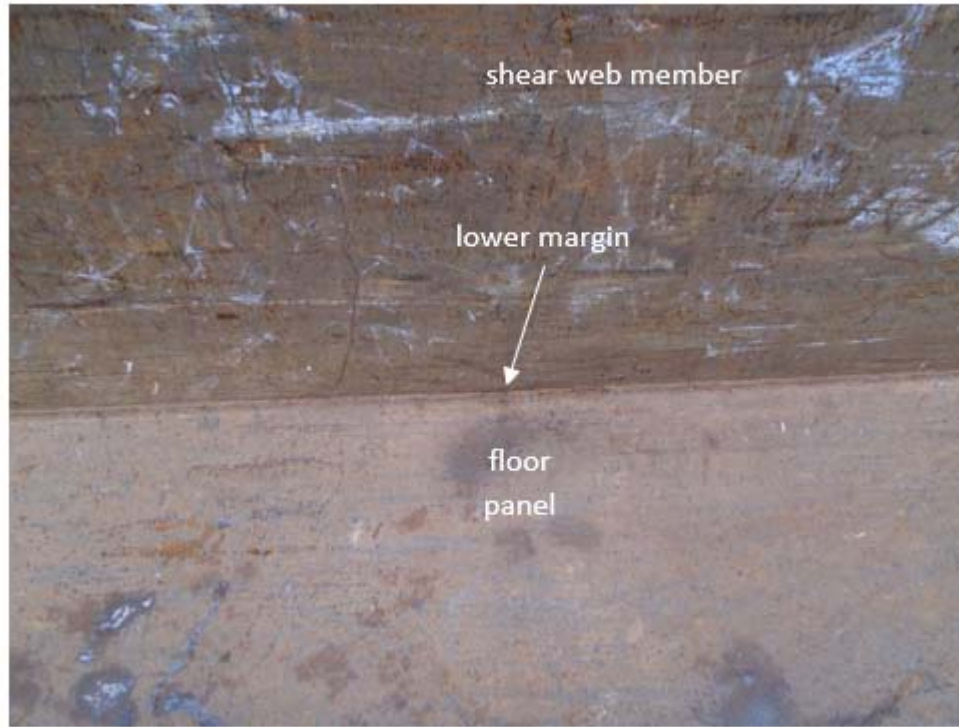
[1h]	and said shear web member has a lower margin	Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, the shear web member of Brandenburg V-Bottom has a lower margin terminating at said at least one floor panel:
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terminating at said at least one floor panel;

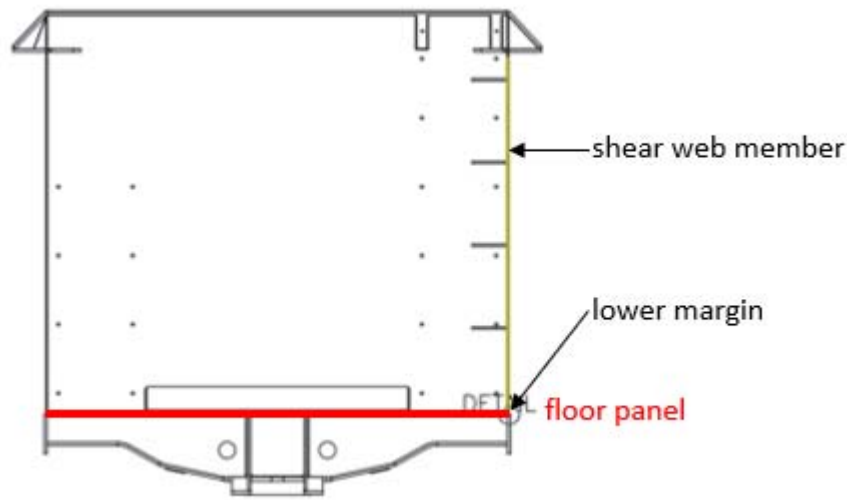


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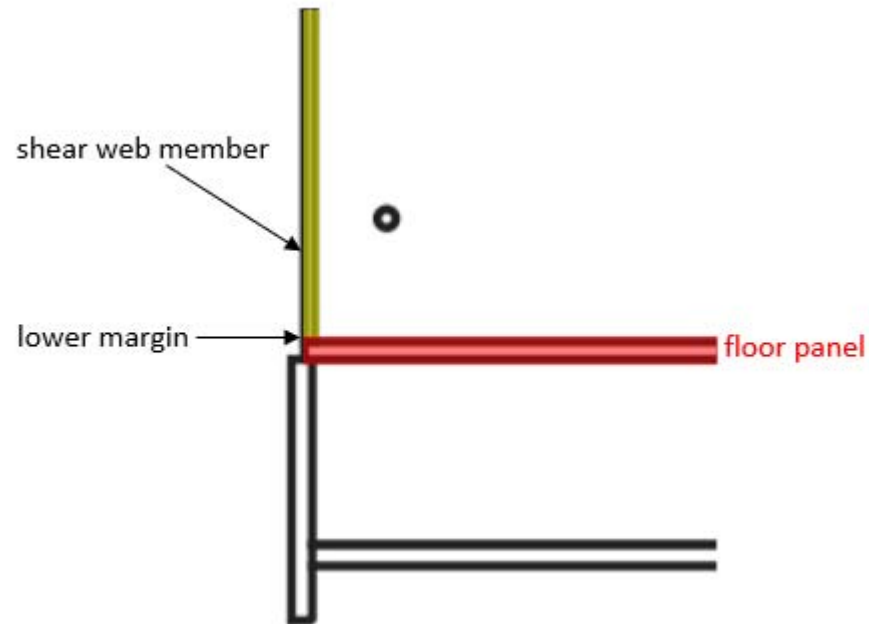


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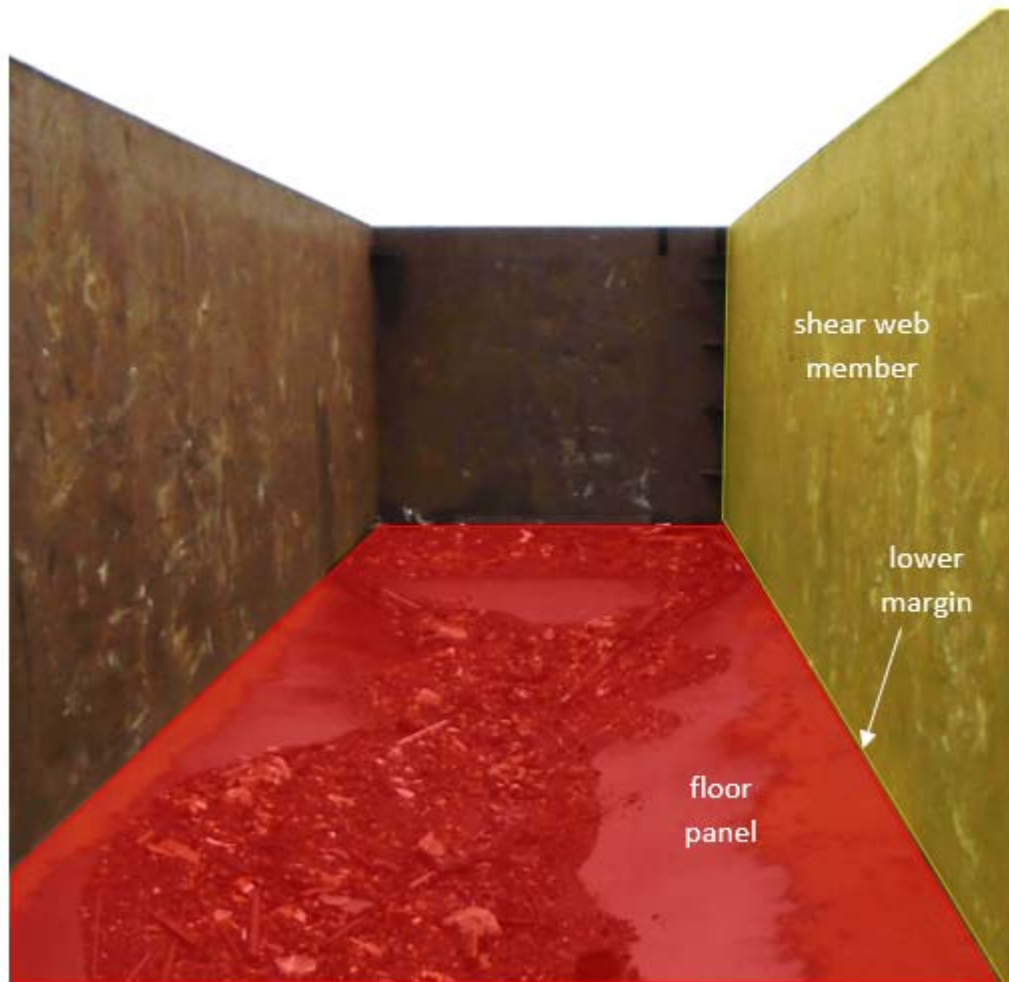


See ECF No. 201, Ex. F at 264 from *Nat'l Steel Car Ltd. v. FreightCar Am., Inc.*, Case No. 15-cv-3418 (N.D. Ill.).

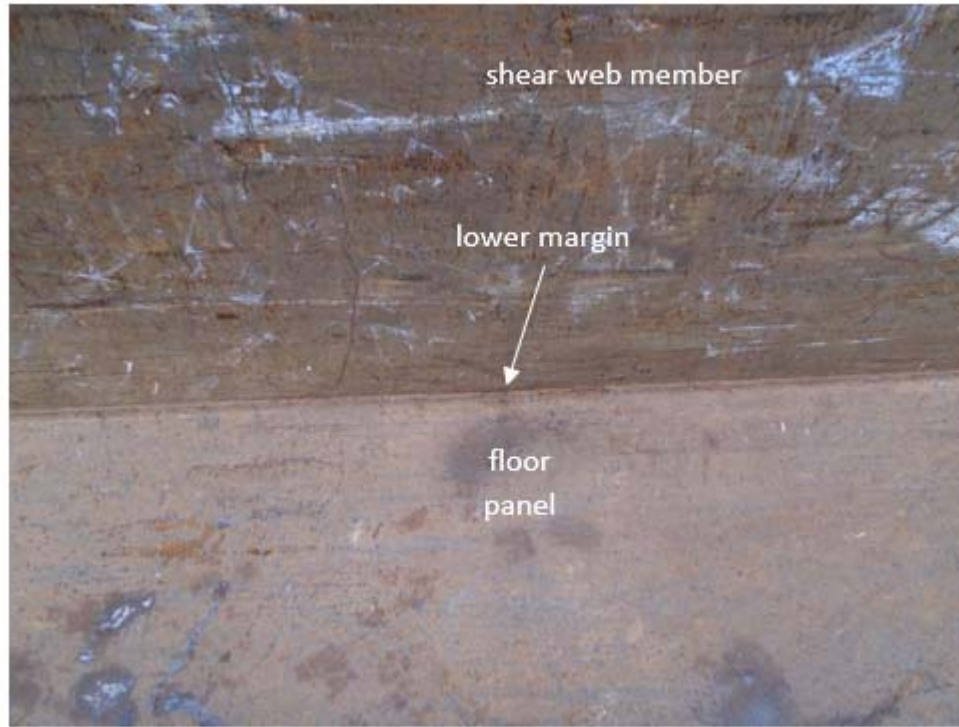


See ECF No. 201, Ex. F at 264 from *Nat'l Steel Car Ltd. v. FreightCar Am., Inc.*, Case No. 15-cv-3418 (N.D. Ill.).

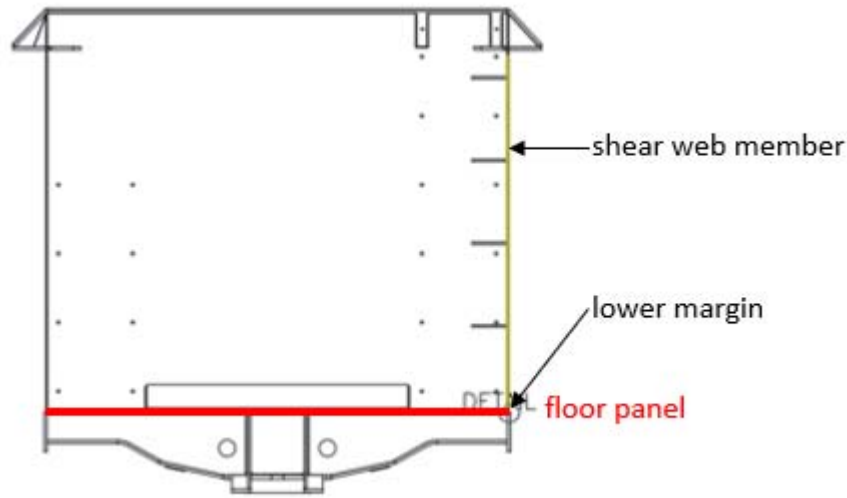
		<p>Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Brandenburg V-Bottom must be found to meet this limitation for purposes of invalidity.</p> <p>To the extent that Brandenburg V-Bottom does not disclose "said shear web member ha[ving] a lower margin terminating at said at least one floor panel," it would have been obvious to a PHOSITA to combine and/or modify Brandenburg V-Bottom with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including the claimed "said shear web member ha[ving] a lower margin terminating at said at least one floor panel."</p>
[1i]	and said at least one floor panel and said lower margin of said shear web member being directly mated together.	<p>Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, the at least one floor panel and said lower margin of said shear web member of Brandenburg V-Bottom are directly mated together:</p>



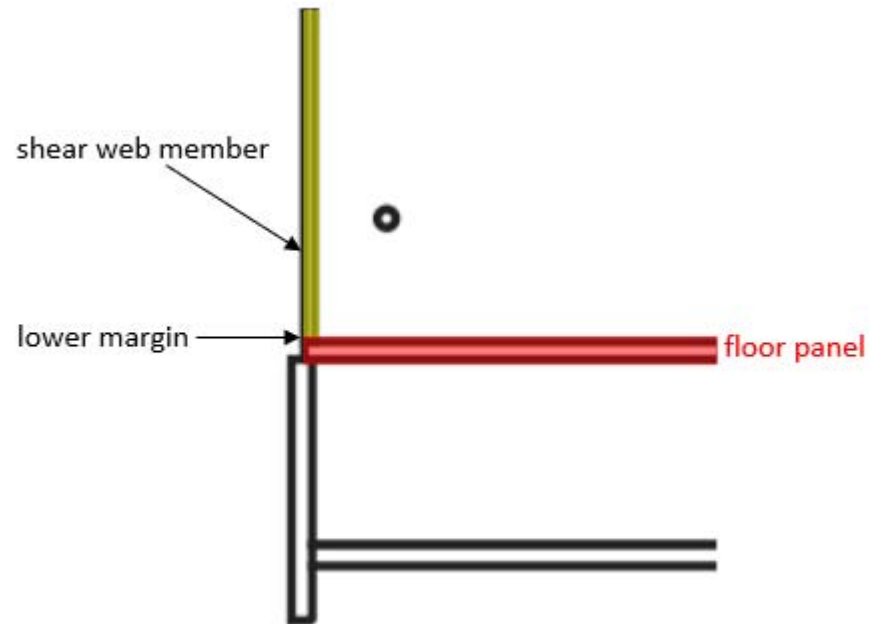
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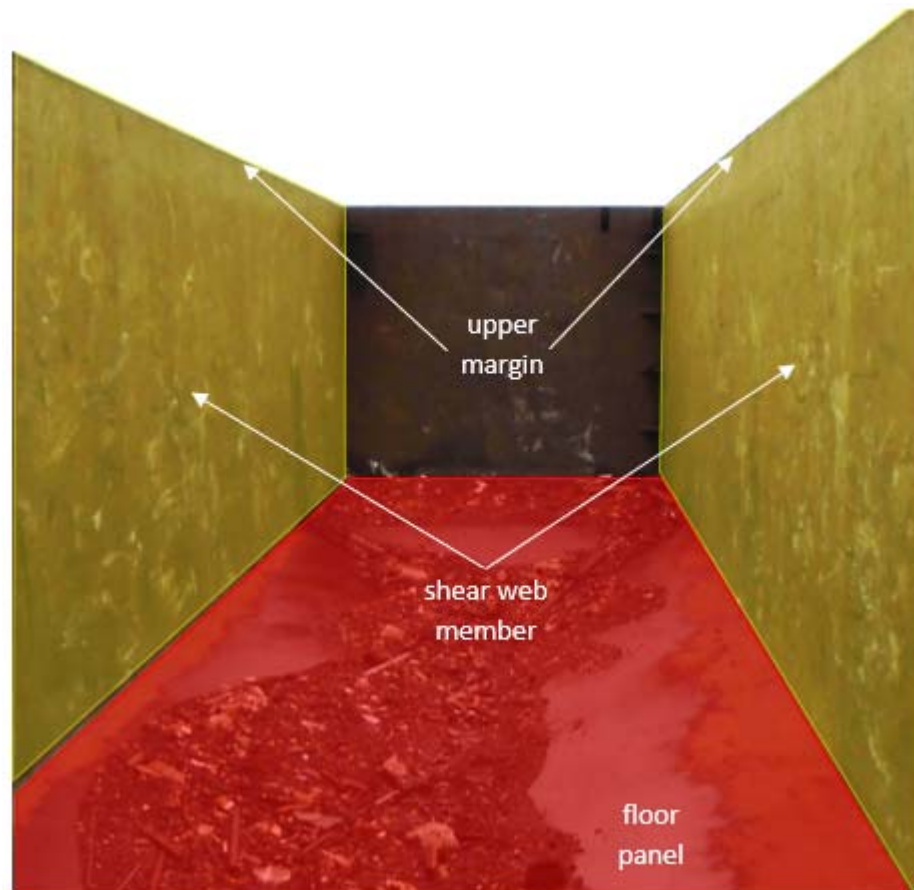


See ECF No. 201, Ex. F at 264 from *Nat'l Steel Car Ltd. v. FreightCar Am., Inc.*, Case No. 15-cv-3418 (N.D. Ill.).



See ECF No. 201, Ex. F at 264 from *Nat'l Steel Car Ltd. v. FreightCar Am., Inc.*, Case No. 15-cv-3418 (N.D. Ill.).

		<p>Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Brandenburg V-Bottom must be found to meet this limitation for purposes of invalidity.</p> <p>To the extent that Brandenburg V-Bottom does not disclose "said at least one floor panel and said lower margin of said shear web member being directly mated together," it would have been obvious to a PHOSITA to combine and/or modify Brandenburg V-Bottom with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including the claimed "said at least one floor panel and said lower margin of said shear web member being directly mated together."</p>
2.	The rail road gondola car of claim 1 wherein	As set forth above, Brandenburg V-Bottom discloses and/or renders obvious each and every limitation of claim 1.
[2a]	said shear web member extends at least one quarter of the way from said at least one floor panel to said upper margin.	Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, Brandenburg V-Bottom has a shear web member that extends at least one quarter of the way from said at least one floor panel to said upper margin:



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Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Brandenburg V-Bottom must be found to meet this limitation for purposes of invalidity.

3. The rail road gondola car of claim 1 wherein:

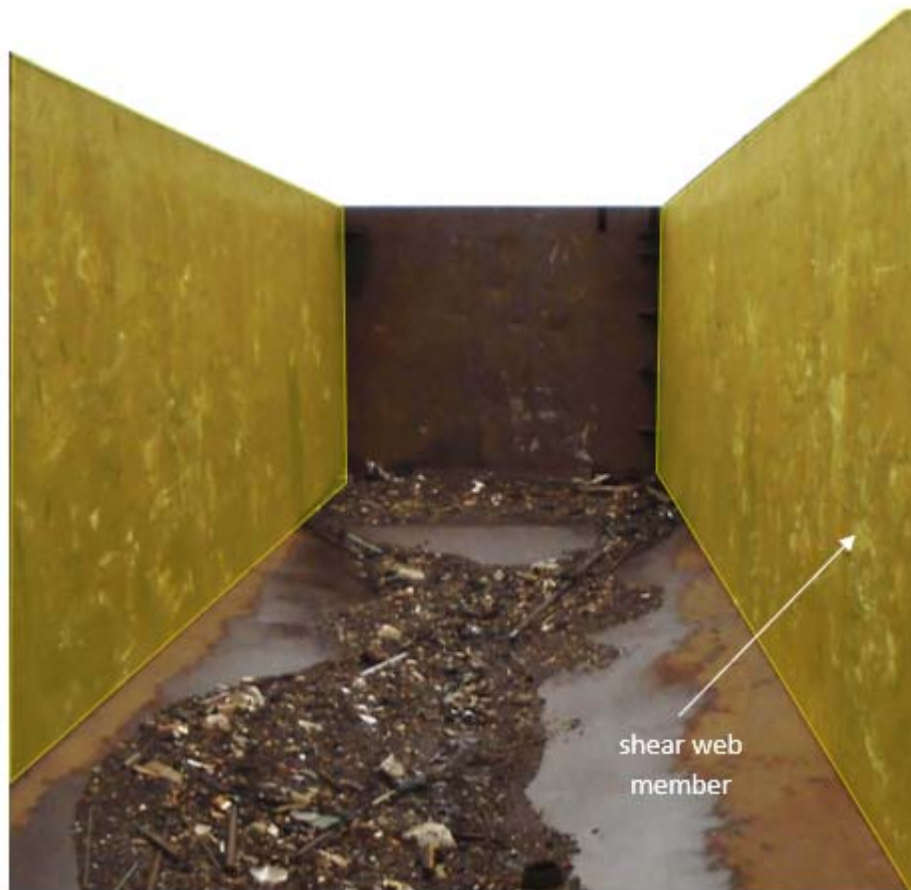
As set forth above, Brandenburg V-Bottom discloses and/or renders obvious each and every limitation of claim 1.

[3a] <sup>2</sup>	said shear web member includes an upper portion and a lower portion; said upper portion having a lower margin; said lower portion being attached along said lower margin to said upper portion;	To the extent that Brandenburg V-Bottom does not disclose “said shear web member includes an upper portion and a lower portion; said upper portion having a lower margin; said lower portion being attached along said lower margin to said upper portion,” it would have been obvious to a PHOSITA to combine and/or modify Brandenburg V-Bottom with one or more other prior art references as set forth in Greenbrier’s Cover Materials to these invalidity contentions, such combination and/or modification including the claimed “said shear web member includes an upper portion and a lower portion; said upper portion having a lower margin; said lower portion being attached along said lower margin to said upper portion.”
[3b] <sup>3</sup>	and said lower portion being mated directly to said at least one floor panel.	To the extent that Brandenburg V-Bottom does not disclose “said lower portion being mated directly to said at least one floor panel,” it would have been obvious to a PHOSITA to combine and/or modify Brandenburg V-Bottom with one or more other prior art references as set forth in Greenbrier’s Cover Materials to these invalidity contentions, such combination and/or modification including the claimed “said lower portion being mated directly to said at least one floor panel.”
4.	The rail road gondola car of claim 3 wherein	To the extent that Brandenburg V-Bottom does not disclose each and every limitation of claim 3, it would have been obvious to a PHOSITA to combine and/or modify Brandenburg V-Bottom with one or more other prior art references as set forth in Greenbrier’s Cover Materials to these invalidity contentions, such combination and/or modification including each and every limitation of claim 3.
[4a]	said lower portion lies outboard of said upper portion.	To the extent that Brandenburg V-Bottom does not disclose “said lower portion l[y]ing outboard of said upper portion,” it would have been obvious to a PHOSITA to combine and/or modify Brandenburg V-Bottom with one or more other prior art references as set forth in Greenbrier’s Cover Materials to these invalidity contentions, such combination and/or modification including the claimed “said lower portion l[y]ing outboard of said upper portion.”
8.	The rail road gondola car of claim 1 wherein	As set forth above, Brandenburg V-Bottom discloses and/or renders obvious each and every limitation of claim 1.
[8a]	said shear web member is predominantly planar.	Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, Brandenburg V-Bottom has a shear web member that is predominantly planar:

<sup>2</sup> This limitation corresponds to limitation 3[b] in Exhibit A of NSC’s Preliminary Infringement Contentions, which do not identify a limitation 3[a].

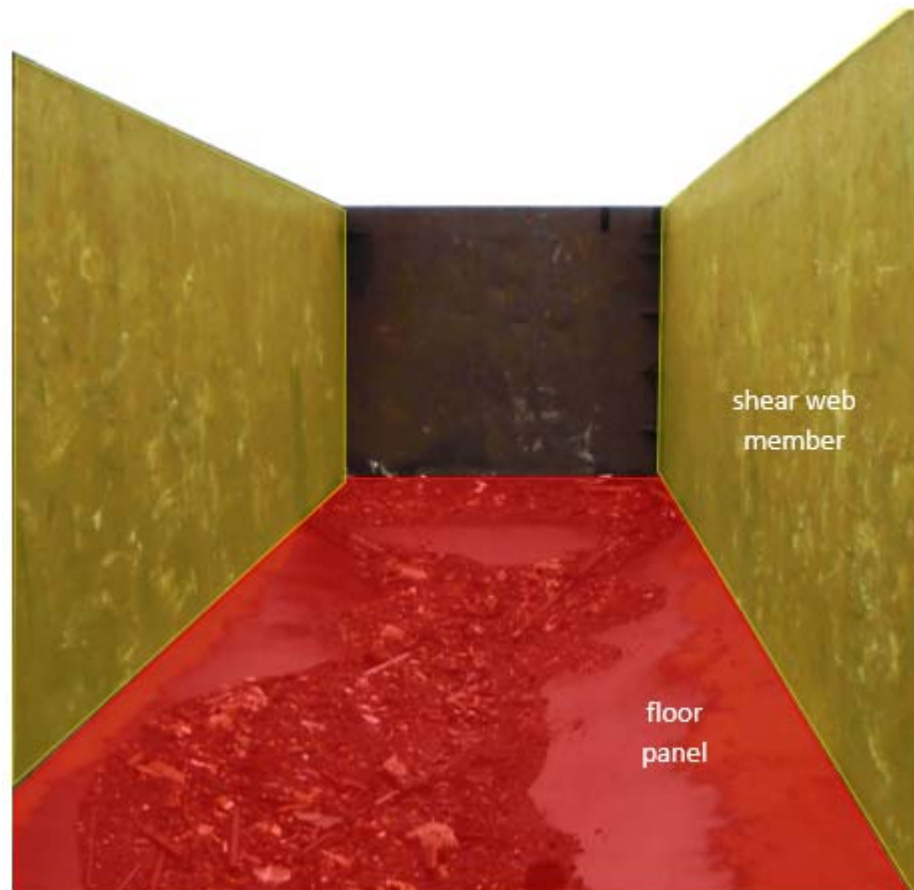
<sup>3</sup> This limitation corresponds to limitation 3[c] in Exhibit A of NSC’s Preliminary Infringement Contentions.





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9.	The rail road gondola car of claim 1 wherein	As set forth above, Brandenburg V-Bottom discloses and/or renders obvious each and every limitation of claim 1.
[9a]	said shear web member stands normal to said at least one floor panel.	Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, Brandenburg V-Bottom has a shear web member that stands normal to said at least one floor panel:




GRNBR0001709.

Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Brandenburg V-Bottom must be found to meet this limitation for purposes of invalidity.

To the extent that Brandenburg V-Bottom does not disclose "said shear web member stands normal to said at least one floor panel," it would have been obvious to a PHOSITA to combine and/or modify Brandenburg V-Bottom with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or

		modification including the claimed “said shear web member stands normal to said at least one floor panel.”
11.	The rail road gondola car of claim 1 wherein	As set forth above, Brandenburg V-Bottom discloses and/or renders obvious each and every limitation of claim 1.
[11a]	a majority of said floor is made from one said floor panel.	<p>Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, a majority of the floor of Brandenburg V-Bottom is made from one said floor panel.</p>  <p>GRNBR0001709.</p> <p>Greenbrier’s invalidity contentions are made in view of NSC’s infringement contentions and in view of NSC’s apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if</p>

		<p>the Accused Products are found to infringe, then Brandenburg V-Bottom must be found to meet this limitation for purposes of invalidity.</p> <p>To the extent that Brandenburg V-Bottom does not disclose “a majority of said floor is made from one said floor panel,” it would have been obvious to a PHOSITA to combine and/or modify Brandenburg V-Bottom with one or more other prior art references as set forth in Greenbrier’s Cover Materials to these invalidity contentions, such combination and/or modification including the claimed “a majority of said floor is made from one said floor panel.”</p>
12.	The rail road gondola car of claim 1 wherein	As set forth above, Brandenburg V-Bottom discloses and/or renders obvious each and every limitation of claim 1.
[12a]	said car is free of side sills.	<p>To the extent “side sills” is not found indefinite as used in the ‘519 patent, Brandenbrug V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, Brandenburg V-Bottom car is free of side sills:</p>  <p>GRNBR0001699.</p>

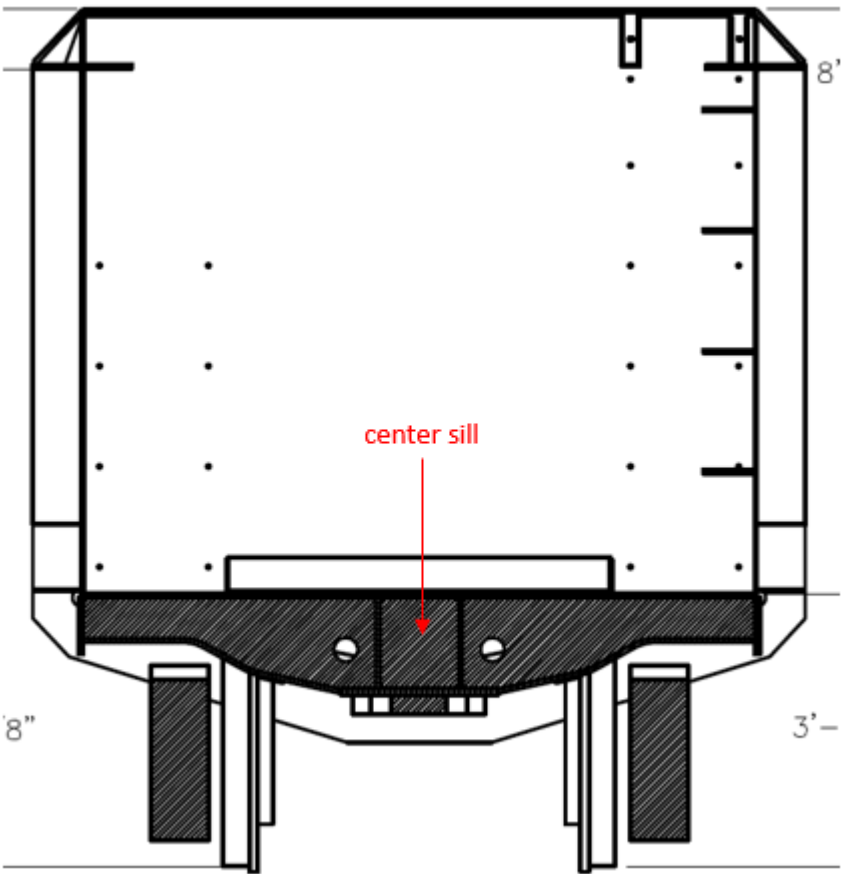



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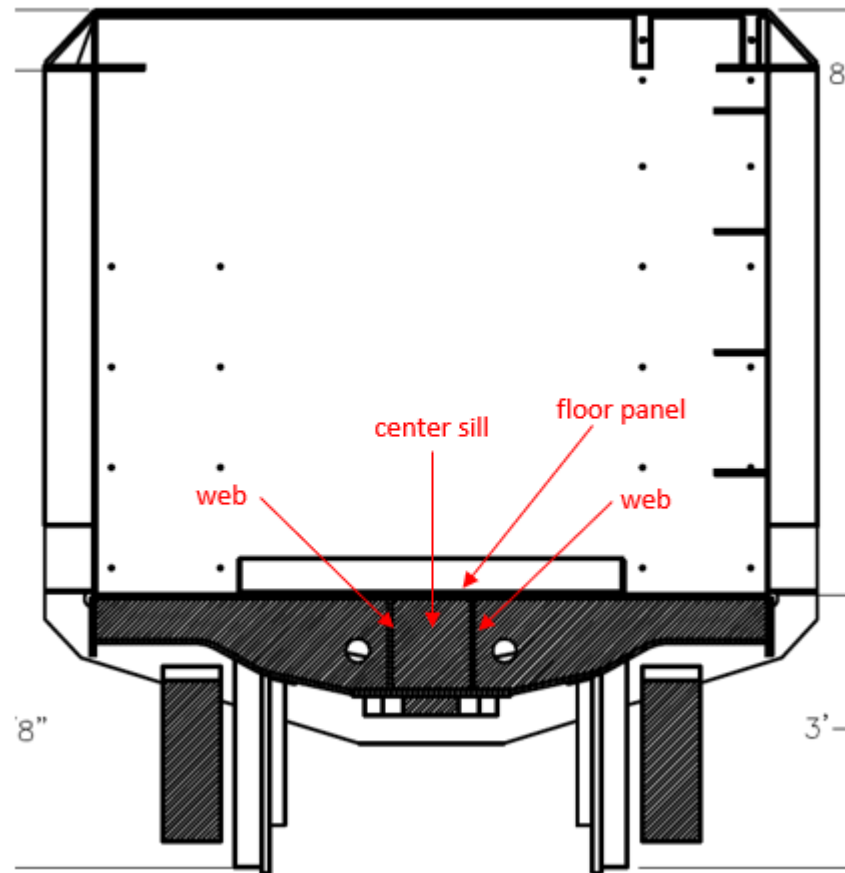
Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Brandenburg V-Bottom must be found to meet this limitation for purposes of invalidity.

To the extent that Brandenburg V-Bottom is not "free of side sills," it would have been obvious to a PHOSITA to combine and/or modify Brandenburg V-Bottom with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including a "car ... free of side sills."



13.	The rail road gondola car of claim 1 wherein	As set forth above, Brandenburg V-Bottom discloses and/or renders obvious each and every limitation of claim 1.
[13a]	said gondola car includes a center sill,	<p>Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, Brandenburg V-Bottom includes a center sill.</p>  <p>GRNBR0001693.</p>

		 <p>GRNBR0001728.</p>
[13b]	said center sill has a pair of spaced apart webs extending downwardly from said at least one floor panel,	<p>Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, the center sill of Brandenburg V-Bottom has a pair of spaced apart webs extending downwardly from the at least one floor panel:</p>



GRNBR0001693.





GRNBR0001728.

Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Brandenburg V-Bottom must be found to meet this limitation for purposes of invalidity.

To the extent that Brandenburg V-Bottom does not disclose "said center sill has a pair of spaced apart webs extending downwardly from said at least one floor panel," it would have been obvious to a PHOSITA to combine and/or modify Brandenburg V-Bottom with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including a "said center sill has a pair of spaced apart webs extending downwardly from said at least one floor panel."

[13c]	and said webs each have an upper margin mated to said at least one floor panel.	Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, the webs of the center sill of Brandenburg V-Bottom each have an upper margin mated to said at least one floor panel, as shown on one side of the center sill:
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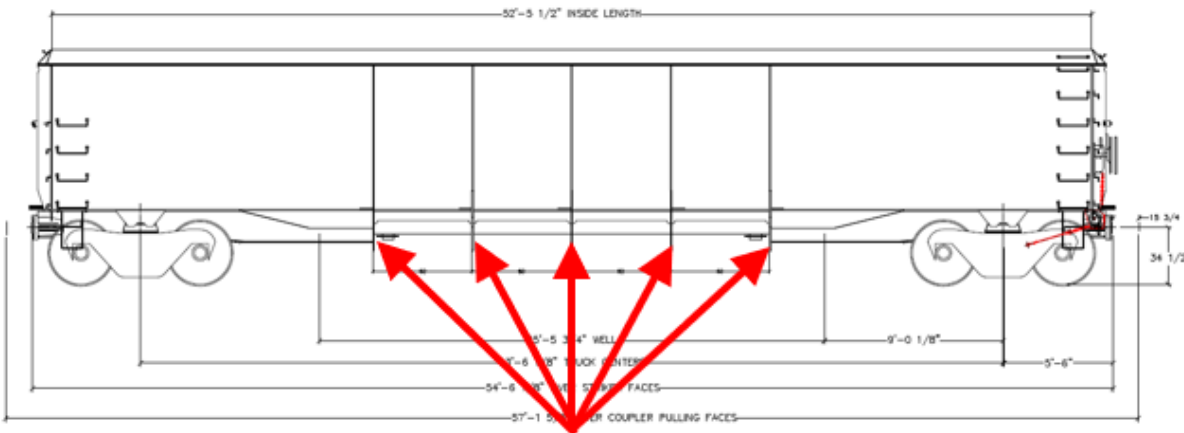



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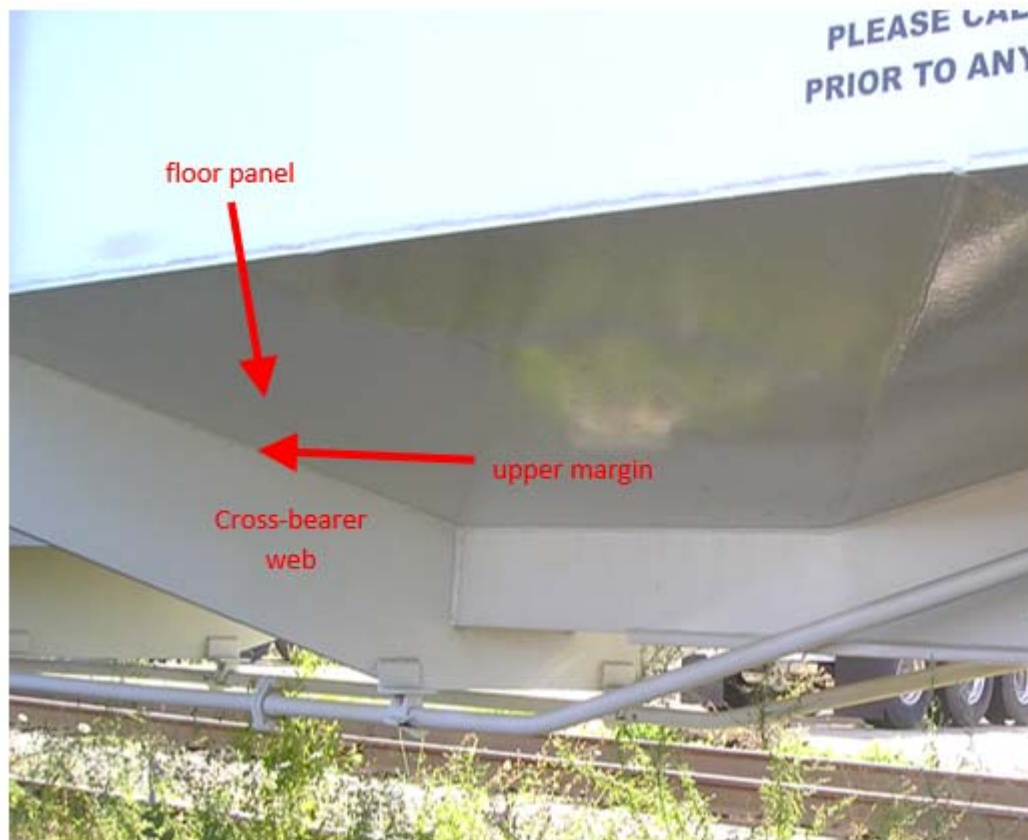
Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Brandenburg V-Bottom must be found to meet this limitation for purposes of invalidity.

To the extent that Brandenburg V-Bottom does not disclose "said webs each have an upper margin mated to said at least one floor panel," it would have been obvious to a PHOSITA to combine and/or modify Brandenburg V-Bottom with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including the claimed "said webs each have an upper margin mated to said at least one floor panel."

14.	The rail road gondola car of claim 1 wherein	As set forth above, Brandenburg V-Bottom discloses and/or renders obvious each and every limitation of claim 1.
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[14a]	said gondola car includes cross-bearers,	<p>Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, Brandenburg V-Bottom includes cross-bearers:</p>  <p style="text-align: center;">Cross-bearers</p> <p>GRNBR0001693.</p>
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		 <p>GRNBR0001728.</p>
[14b]	and said cross-bearers have webs, said webs having upper margins mated directly to said at least one floor panel.	<p>Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, the cross-bearers of Brandenburg V-Bottom have webs, said webs having upper margins mated directly to said at least one floor panel:</p>




GRNBR0001728.

Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Brandenburg V-Bottom must be found to meet this limitation for purposes of invalidity.

To the extent that Brandenburg V-Bottom does not disclose "said webs having upper margins mated directly to said at least one floor panel," it would have been obvious to a PHOSITA to combine and/or modify Brandenburg V-Bottom with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or

		modification including the claimed “said webs having upper margins mated directly to said at least one floor panel.”
15.	A rail road gondola car comprising:	To the extent the preamble is a limitation, Brandenburg V-Bottom discloses and/or renders obvious this limitation. <i>See</i> Claim 1, preamble.
[15a]	a gondola car body carried by railroad car trucks for rolling motion along rail road tracks;	Brandenburg V-Bottom discloses and/or renders obvious this limitation. <i>See</i> Claim 1[a].
[15b]	said gondola car body having a longitudinal centerline;	Brandenburg V-Bottom discloses and/or renders obvious this limitation. <i>See</i> Claim 1[b].
[15c]	said gondola car body having a floor and a wall structure standing upwardly of said floor,	Brandenburg V-Bottom discloses and/or renders obvious this limitation. <i>See</i> Claim 1[c].
[15d]	said floor and said wall structure defining a lading receptacle;	Brandenburg V-Bottom discloses and/or renders obvious this limitation. <i>See</i> Claim 1[d].
[15e]	said gondola car body including a pair of lengthwise running side beams, said side beams defining portions of said wall structure;	Brandenburg V-Bottom discloses and/or renders obvious this limitation. <i>See</i> Claim 1[f].
[15f]	said side beams each having an upper margin, and a longitudinally running shear web member extending predominantly downwardly of said upper margin;	Brandenburg V-Bottom discloses and/or renders obvious this limitation. <i>See</i> Claim 1[g].
[15g]	said floor including at least one floor panel;	Brandenburg V-Bottom discloses and/or renders obvious this limitation. <i>See</i> Claim 1[e].



[15h]	said at least one floor panel and said shear web member being directly mated together;	Brandenburg V-Bottom discloses and/or renders obvious this limitation. <i>See</i> Claim 1[i].
[15i]	and said at least one floor panel extends laterally away from said longitudinal centerline past said shear web member.	<p>Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, the at least one floor panel of Brandenburg V-Bottom extends laterally away from said longitudinal centerline past said shear web member.</p>  <p>GRNBR0001714.</p>

		<p>Additionally, on information and belief, the at least one floor panel extends laterally away from said longitudinal centerline past said shear web member by approximately 3/8 inch.</p> <p>Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Brandenburg V-Bottom must be found to meet this limitation for purposes of invalidity.</p> <p>To the extent that the at least one floor panel of Brandenburg V-Bottom does not "extend[] laterally away from said longitudinal centerline past said shear web member," it would have been obvious to a PHOSITA to combine and/or modify Brandenburg V-Bottom with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including "at least one floor panel extend[ing] laterally away from said longitudinal centerline past said shear web member."</p>
16.	The rail road gondola car of claim 15 wherein	As set forth above, Brandenburg V-Bottom discloses and/or renders obvious each and every limitation of claim 15.
[16a]	said car is free of side sills.	To the extent "side sills" is not found indefinite as used in the '519 patent, Brandenburg V-Bottom discloses and/or renders obvious this limitation. <i>See</i> Claim 12[a].
18.	The rail road gondola car of claim 15 wherein	As set forth above, Brandenburg V-Bottom discloses and/or renders obvious each and every limitation of claim 15.
[18a]	said gondola car includes a center sill,	Brandenburg V-Bottom discloses and/or renders obvious this limitation. <i>See</i> Claim 13[a].
[18b]	said center sill has a pair of spaced apart webs extending downwardly from said at least one floor panel,	Brandenburg V-Bottom discloses and/or renders obvious this limitation. <i>See</i> Claim 13[b].
[18c]	and said webs each have an upper margin mated to said at least one floor panel.	Brandenburg V-Bottom discloses and/or renders obvious this limitation. <i>See</i> Claim 13[c].



19.	The rail road gondola car of claim 15 wherein	As set forth above, Brandenburg V-Bottom discloses and/or renders obvious each and every limitation of claim 15.
[19a]	said gondola car includes cross bearers,	Brandenburg V-Bottom discloses and/or renders obvious this limitation. <i>See</i> Claim 14[a].
[19b]	and said cross-bearers have webs, said webs having upper margins mated directly to said at least one floor panel.	Brandenburg V-Bottom discloses and/or renders obvious this limitation. <i>See</i> Claim 14[b].
22.	A rail road gondola car comprising:	To the extent the preamble is a limitation, Brandenburg V-Bottom discloses and/or renders obvious this limitation. <i>See</i> Claim 1, preamble.
[22a]	a gondola car body carried by railroad car trucks for rolling motion along rail road tracks;	Brandenburg V-Bottom discloses and/or renders obvious this limitation. <i>See</i> Claim 1[a].
[22b]	said gondola car body having a longitudinal centerline;	Brandenburg V-Bottom discloses and/or renders obvious this limitation. <i>See</i> Claim 1[b].
[22c]	said gondola car body having a floor and a wall structure standing upwardly of said floor,	Brandenburg V-Bottom discloses and/or renders obvious this limitation. <i>See</i> Claim 1[c].
[22d]	said floor and said wall structure defining a lading receptacle;	Brandenburg V-Bottom discloses and/or renders obvious this limitation. <i>See</i> Claim 1[d].
[22e]	said gondola car body including a pair of lengthwise running side beams, said side beams defining portions of said wall structure;	Brandenburg V-Bottom discloses and/or renders obvious this limitation. <i>See</i> Claim 1[f].
[22f]	said side beams each having an upper margin, and a longitudinally running shear web member extending	Brandenburg V-Bottom discloses and/or renders obvious this limitation. <i>See</i> Claim 1[g].

	predominantly downwardly of said upper margin;	
[22g]	said floor including at least one floor panel;	Brandenburg V-Bottom discloses and/or renders obvious this limitation. <i>See</i> Claim 1[e].
[22h]	said at least one floor panel and said shear web member being directly mated together;	Brandenburg V-Bottom discloses and/or renders obvious this limitation. <i>See</i> Claim 1[i].
[22i]	a centersill;	Brandenburg V-Bottom discloses and/or renders obvious this limitation. <i>See</i> Claim 13[a].
[22j]	said center sill has a pair of spaced apart webs extending downwardly from said at least one floor panel,	Brandenburg V-Bottom discloses and/or renders obvious this limitation. <i>See</i> Claim 13[b].
[22k]	said webs each have an upper margin mated to said at least one floor panel;	Brandenburg V-Bottom discloses and/or renders obvious this limitation. <i>See</i> Claim 13[c].
[22l]	said gondola car includes at least one cross-bearer,	Brandenburg V-Bottom discloses and/or renders obvious this limitation. <i>See</i> Claim 14[a].
[22m]	said at least one cross-bearer has at least one web, said web of said at least one cross-bearer has an upper margin mated directly to said at least one floor panel;	Brandenburg V-Bottom discloses and/or renders obvious this limitation. <i>See</i> Claim 14[b].
[22n]	and said at least one floor panel defines an upper flange of said center sill and said at least one cross-bearer,	<p>Brandenburg V-Bottom discloses and/or renders obvious this limitation. As set forth above, for example, the center sill and the at least one cross-bearer mate directly to the floor, and the at least one floor panel defines an upper flange of the center sill and of said at least one cross-bearer. <i>See</i> Claim 22[k], 22[m].</p> <p>Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Brandenburg V-Bottom must be found to meet this limitation for purposes of invalidity.</p>

		<p>To the extent that Brandenburg V-Bottom does not disclose “said at least one floor panel defines an upper flange of said center sill and said at least one cross-bearer,” it would have been obvious to a PHOSITA to combine and/or modify Brandenburg V-Bottom with one or more other prior art references as set forth in Greenbrier’s Cover Materials to these invalidity contentions, such combination and/or modification including the claimed “said at least one floor panel defines an upper flange of said center sill and said at least one cross-bearer.”</p>
[22o]	and a bottom flange of at least one of said side beams.	<p>Brandenburg V-Bottom discloses and/or renders obvious this limitation. As set forth above, for example, the at least one floor panel mates directly to the shear web member and defines the bottom flange of at least one of said side beams. <i>See</i> Claim 22[h].</p> <p>Greenbrier’s invalidity contentions are made in view of NSC’s infringement contentions and in view of NSC’s apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Brandenburg V-Bottom must be found to meet this limitation for purposes of invalidity.</p> <p>To the extent that Brandenburg V-Bottom does not disclose “a bottom flange of at least one of said side beams,” it would have been obvious to a PHOSITA to combine and/or modify Brandenburg V-Bottom with one or more other prior art references as set forth in Greenbrier’s Cover Materials to these invalidity contentions, such combination and/or modification including the claimed “bottom flange of at least one of said side beams.”</p>
23.	The rail road gondola car of claim 22 wherein	As set forth above, Brandenburg V-Bottom discloses and/or renders obvious each and every limitation of claim 22.
[23a]	said rail road gondola car is free of any other member defining a center sill top flange.	<p>Brandenburg V-Bottom discloses and/or renders obvious this limitation. As set forth above, for example, the webs of the center sill mate directly to the floor and is free of any other member defining a center sill top flange. <i>See</i> Claim 22[k].</p> <p>Greenbrier’s invalidity contentions are made in view of NSC’s infringement contentions and in view of NSC’s apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Brandenburg V-Bottom must be found to meet this limitation for purposes of invalidity.</p>


		To the extent that Brandenburg V-Bottom does not disclose “said rail road gondola car is free of any other member defining a center sill top flange,” it would have been obvious to a PHOSITA to combine and/or modify Brandenburg V-Bottom with one or more other prior art references as set forth in Greenbrier’s Cover Materials to these invalidity contentions, such combination and/or modification including the claimed “said rail road gondola car is free of any other member defining a center sill top flange.”
24.	The rail road gondola car of claim 22 wherein	As set forth above, Brandenburg V-Bottom discloses and/or renders obvious each and every limitation of claim 22.
[24a]	said rail road gondola car is free of any other member defining cross-bearer top flanges.	<p>Brandenburg V-Bottom discloses and/or renders obvious this limitation. As set forth above, for example, the at least one web of the at least one cross-bearer mates directly to the floor and is free of any other member defining a cross-bearer top flange. <i>See</i> Claim 22[m].</p> <p>Greenbrier’s invalidity contentions are made in view of NSC’s infringement contentions and in view of NSC’s apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Brandenburg V-Bottom must be found to meet this limitation for purposes of invalidity.</p> <p>To the extent that Brandenburg V-Bottom does not disclose “said rail road gondola car is free of any other member defining cross-bearer top flanges,” it would have been obvious to a PHOSITA to combine and/or modify Brandenburg V-Bottom with one or more other prior art references as set forth in Greenbrier’s Cover Materials to these invalidity contentions, such combination and/or modification including the claimed “said rail road gondola car is free of any other member defining cross-bearer top flanges.”</p>
25.	The rail road gondola car of claim 22 wherein	As set forth above, Brandenburg V-Bottom discloses and/or renders obvious each and every limitation of claim 22.
[25a]	said rail road gondola car is free of any other member defining a bottom flange of said side beams.	Brandenburg V-Bottom discloses and/or renders obvious this limitation. As set forth above, for example, the at least one floor panel mates directly to the shear web member, and is free of any other member defining a bottom flange of said side beams. <i>See</i> Claim 22[h].

		<p>Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Brandenburg V-Bottom must be found to meet this limitation for purposes of invalidity.</p> <p>To the extent that Brandenburg V-Bottom does not disclose "said rail road gondola car is free of any other member defining a bottom flange of said side beams," it would have been obvious to a PHOSITA to combine and/or modify Brandenburg V-Bottom with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including the claimed "said rail road gondola car is free of any other member defining a bottom flange of said side beams."</p>
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## **EXHIBIT A-4**

**EXHIBIT A-4****Invalidity Chart for U.S. Patent No. 7,434,519 over the Southern Woodchip Gondola (Series SOU 139725-139874)  
("Southern Woodchip")**

Southern Woodchip is prior art under at least 35 U.S.C. § 102(a) and § 102(b) because it was known or used by others in the United States, in public use in the United States, and/or on sale in the United States at least as early as May 1970.

<b>Claims of U.S. Patent No. 7,434,519</b>		<b>Corresponding Disclosure</b>
1.	A rail road gondola car comprising:	<p>To the extent the preamble is a limitation, Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, Southern Woodchip is a railroad gondola car:</p>  <p>GRNBR0001952.</p>
[1a]	a gondola car body carried by railroad car trucks for rolling motion along rail road tracks;	Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, for example, Southern Woodchip is a gondola car carried by railroad car trucks for rolling motion along rail road tracks.



		 <p style="text-align: center;">trucks</p> <p>GRNBR0001952.</p>
[1b]	said gondola car body having a longitudinal centerline;	<p>Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, Southern Woodchip body has a longitudinal centerline:</p>  <p>GRNBR0002330.</p>
[1c]	said gondola car body having a floor and a wall structure	<p>Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, Southern Woodchip body has a floor and a wall structure standing upwardly of said floor:</p>



standing upwardly of said floor,



GRNBR0001881.

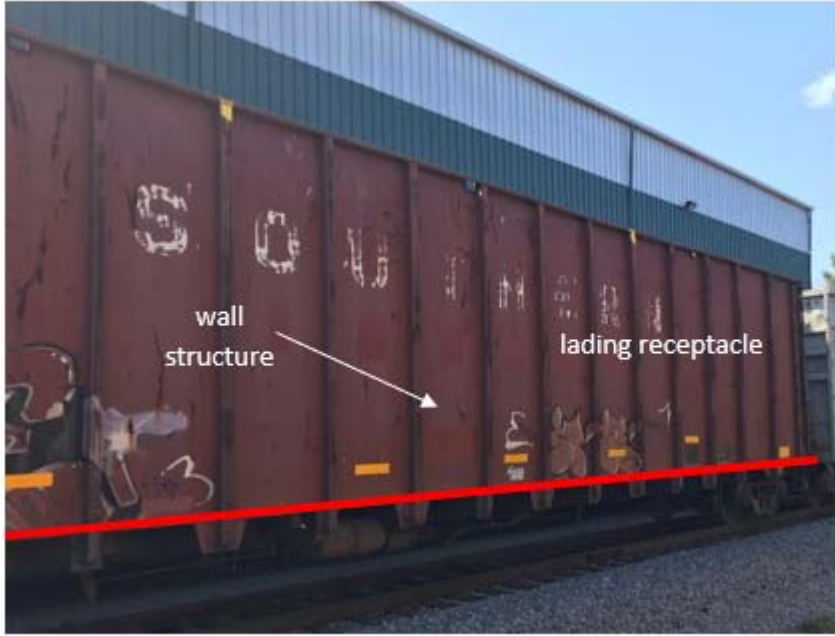
Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Southern Woodchip must be found to meet this limitation for purposes of invalidity.


To the extent that Southern Woodchip does not disclose "said gondola car body having a floor and a wall structure standing upwardly of said floor," it would have been obvious to a PHOSITA to combine and/or modify Southern Woodchip with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including the claimed "said gondola car body having a floor and a wall structure standing upwardly of said floor."


[1d]


said floor and said wall structure defining a lading receptacle;

Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, the floor and wall structure of Southern Woodchip define a lading receptacle:

		 <p>GRNBR0001881.</p>
[1e]	said floor including at least one floor panel;	Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, the floor of Southern Woodchip includes at least one floor panel.

		 <p>GRNBR0001885.</p> <p>Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Southern Woodchip must be found to meet this limitation for purposes of invalidity.</p>
[1f]	said gondola car body including a pair of lengthwise running side beams, said side beams defining portions of said wall structure;	Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, Southern Woodchip body includes a pair of lengthwise running side beams, said side beams defining portions of said wall structure:

		 <p>GRNBR0002266.</p>
[1g]	said side beams each having an upper margin, and a longitudinally running shear web member extending predominantly downwardly of said upper margin	Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, the side beams of Southern Woodchip each have an upper margin, and a longitudinally running shear web member extending predominantly downwardly of said upper margin:

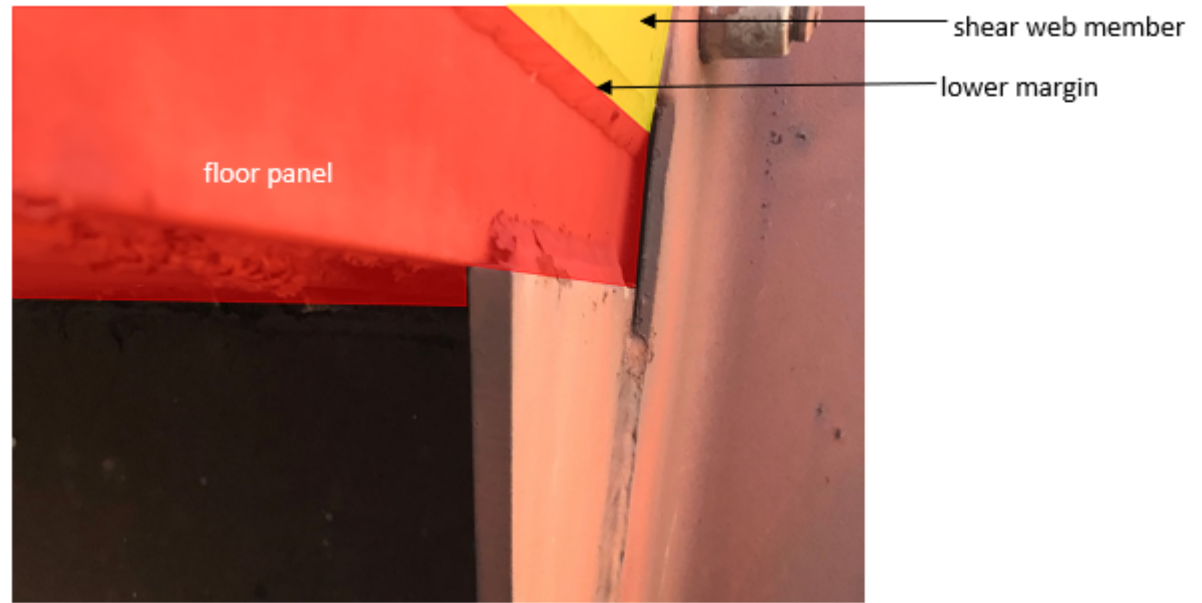
		 <p>GRNBR0001881.</p> <p>Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Southern Woodchip must be found to meet this limitation for purposes of invalidity.</p>
[1h]	and said shear web member has a lower margin terminating at said at least one floor panel;	Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, the shear web member of Southern Woodchip has a lower margin terminating at said at least one floor panel:



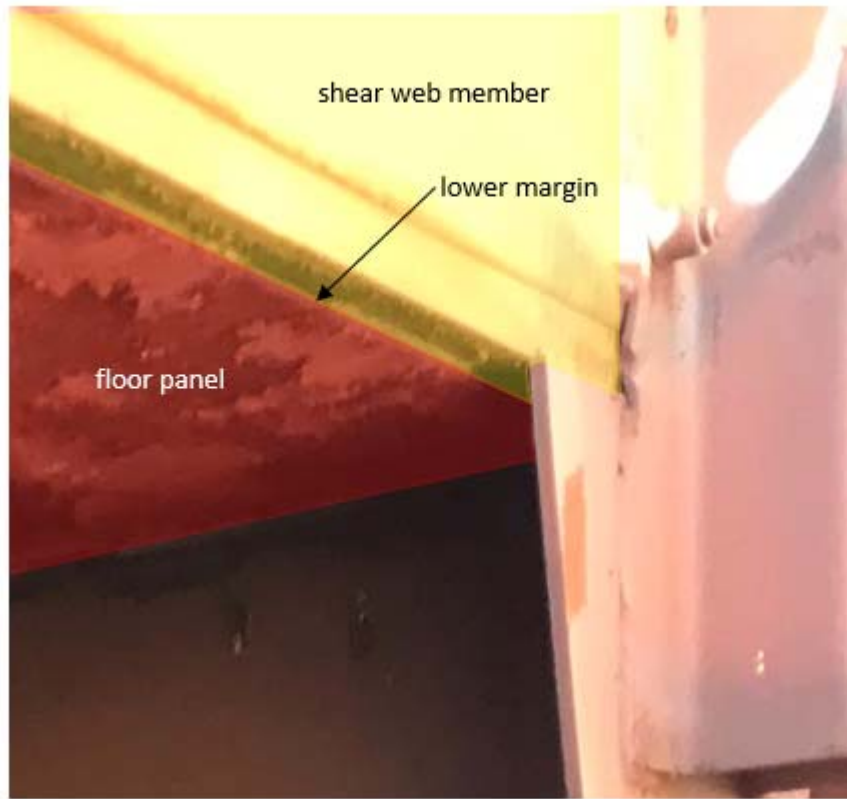
GRNBR0001894.

Additionally, or in the alternative, Southern Woodchip discloses and/or renders obvious this limitation, as set forth below, for example:





GRNBR0001894.




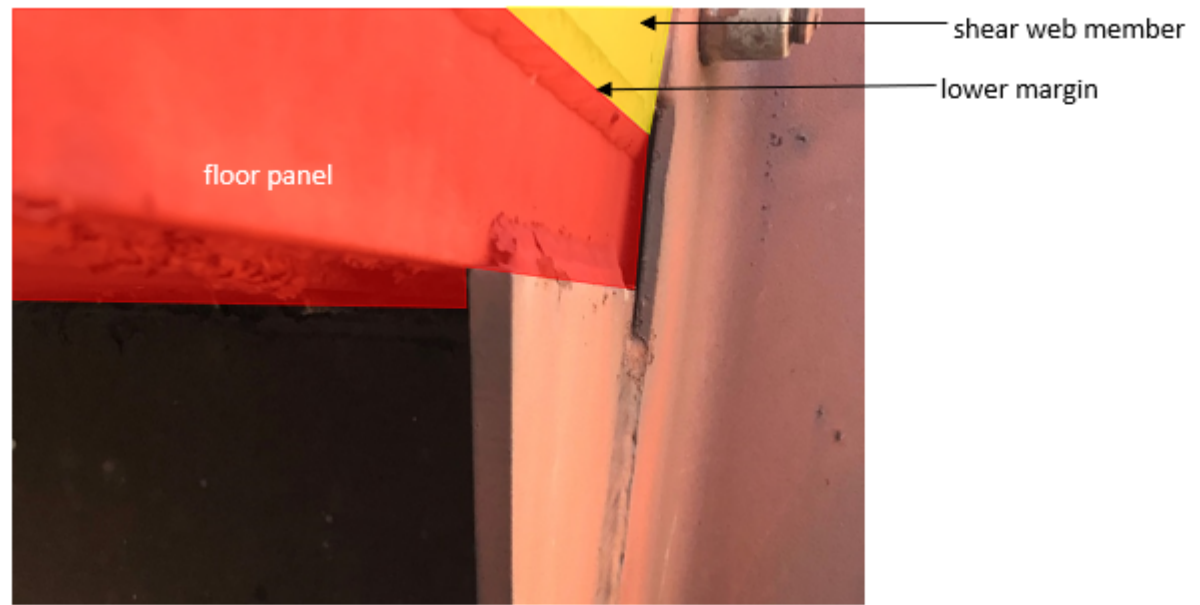
GRNBR0001886.

Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Southern Woodchip must be found to meet this limitation for purposes of invalidity.

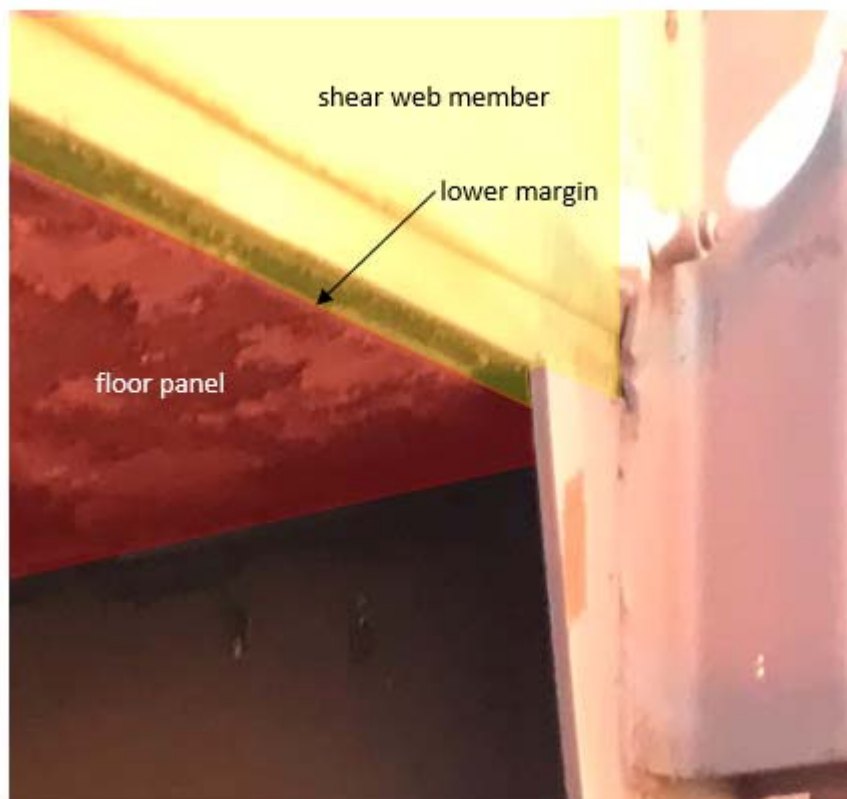
To the extent that Southern Woodchip does not disclose "said shear web member ha[ving] a lower margin terminating at said at least one floor panel," it would have been obvious to a PHOSITA to combine and/or modify Southern Woodchip with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including the claimed "said shear web member ha[ving] a lower margin terminating at said at least one floor panel."



[1i]	and said at least one floor panel and said lower margin of said shear web member being directly mated together.	<p>Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, the at least one floor panel and said lower margin of said shear web member of Southern Woodchip body are directly mated together:</p>  <p>GRNBR0001894.</p> <p>Additionally, or in the alternative, Southern Woodchip discloses and/or renders obvious this limitation, as set forth below, for example:</p>
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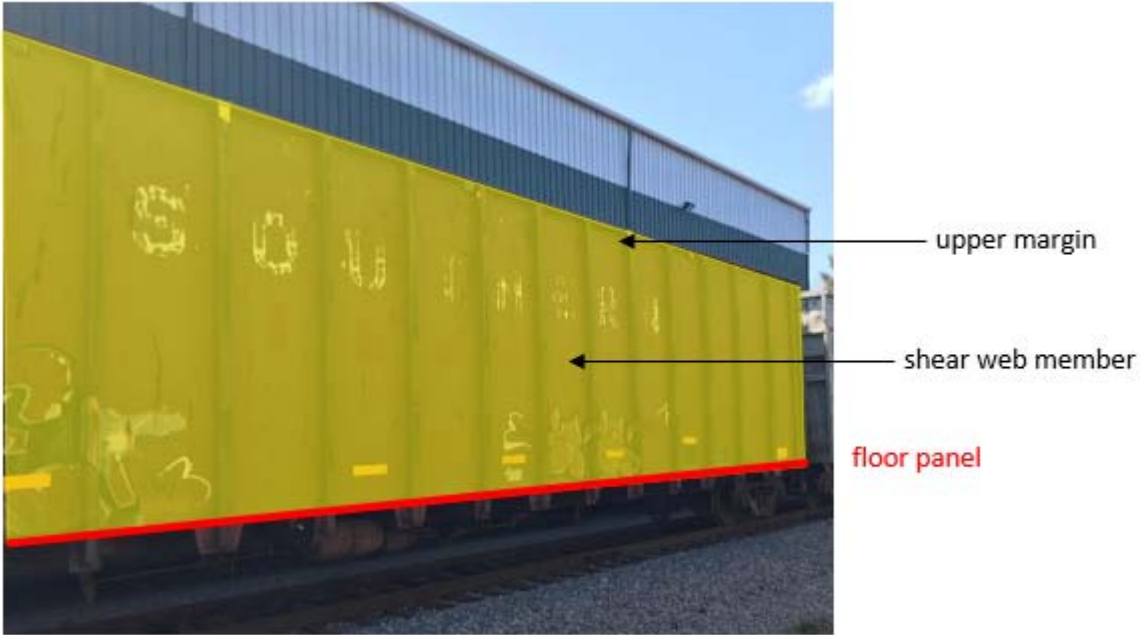
GRNBR0001894.



GRNBR0001886.

Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Southern Woodchip must be found to meet this limitation for purposes of invalidity.

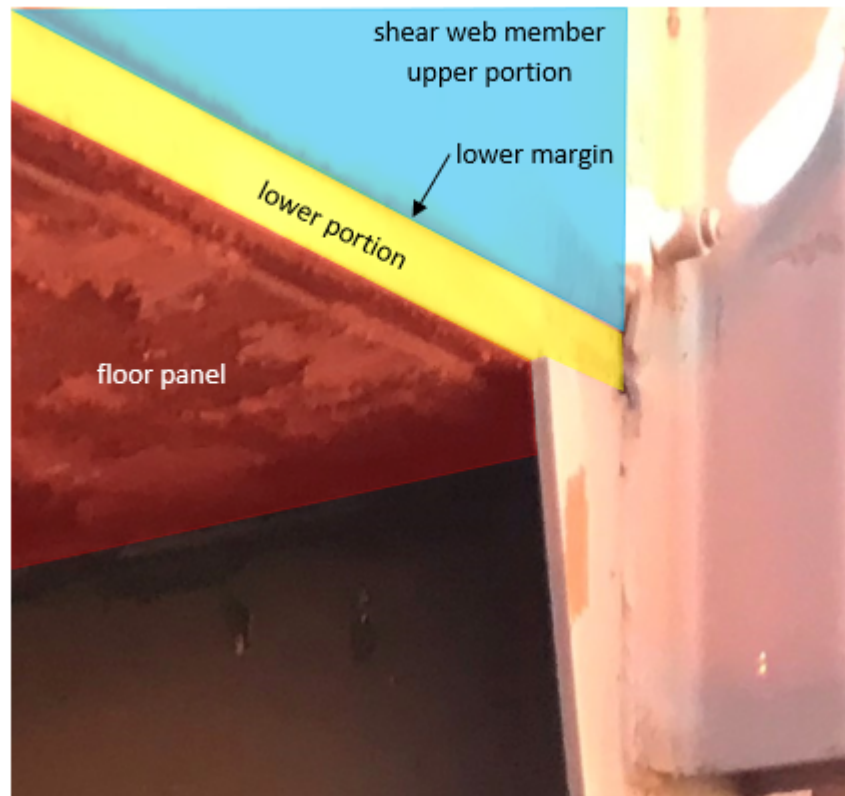
To the extent that Southern Woodchip does not disclose "said at least one floor panel and said lower margin of said shear web member being directly mated together," it would have been obvious to a PHOSITA to combine and/or modify Southern Woodchip with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including the claimed "said at least one floor panel and said lower margin of said shear web member being directly mated together."

2.	The rail road gondola car of claim 1 wherein	As set forth above, Southern Woodchip discloses and/or renders obvious each and every limitation of claim 1.
[2a]	said shear web member extends at least one quarter of the way from said at least one floor panel to said upper margin.	<p>Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, Southern Woodchip has a shear web member that extends at least one quarter of the way from said at least one floor panel to said upper margin:</p>  <p>GRNBR0001881.</p> <p>Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Southern Woodchip must be found to meet this limitation for purposes of invalidity.</p>
3.	The rail road gondola car of claim 1 wherein:	As set forth above, Southern Woodchip discloses and/or renders obvious each and every limitation of claim 1.

[3a]<sup>1</sup>

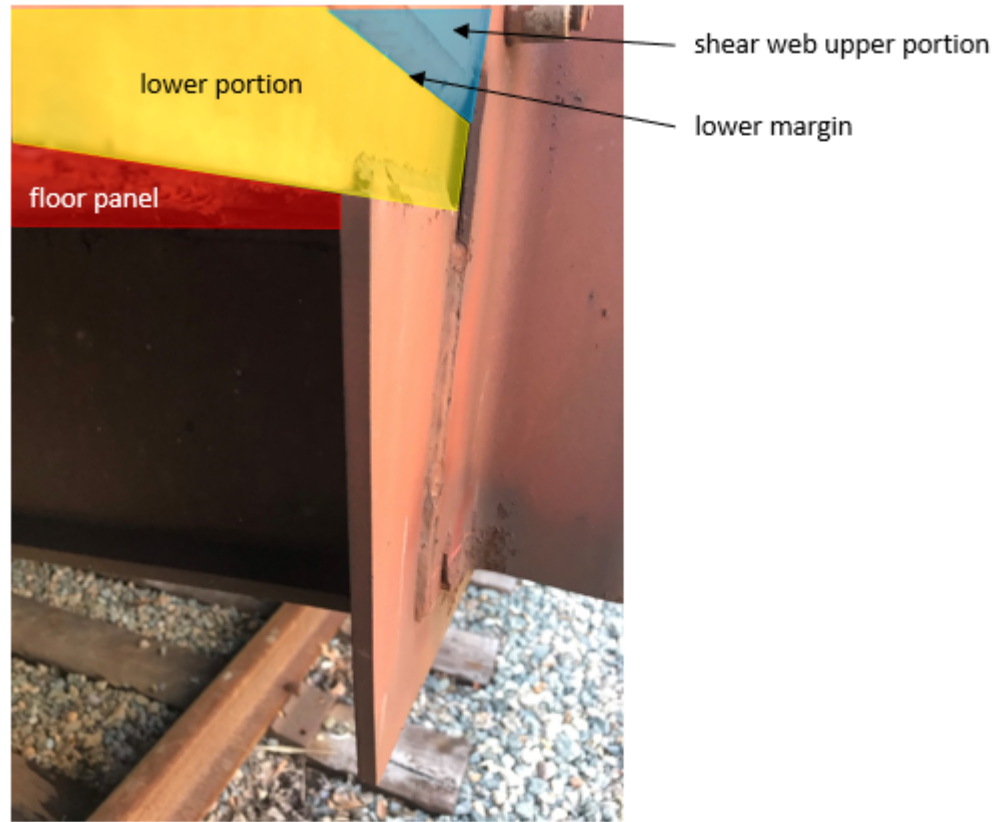
said shear web member includes an upper portion and a lower portion; said upper portion having a lower margin; said lower portion being attached along said lower margin to said upper portion;

Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, Southern Woodchip has a shear web member that includes an upper portion and a lower portion, where said upper portion has a lower margin and the lower portion of the shear web member is attached along said lower margin to said upper portion:



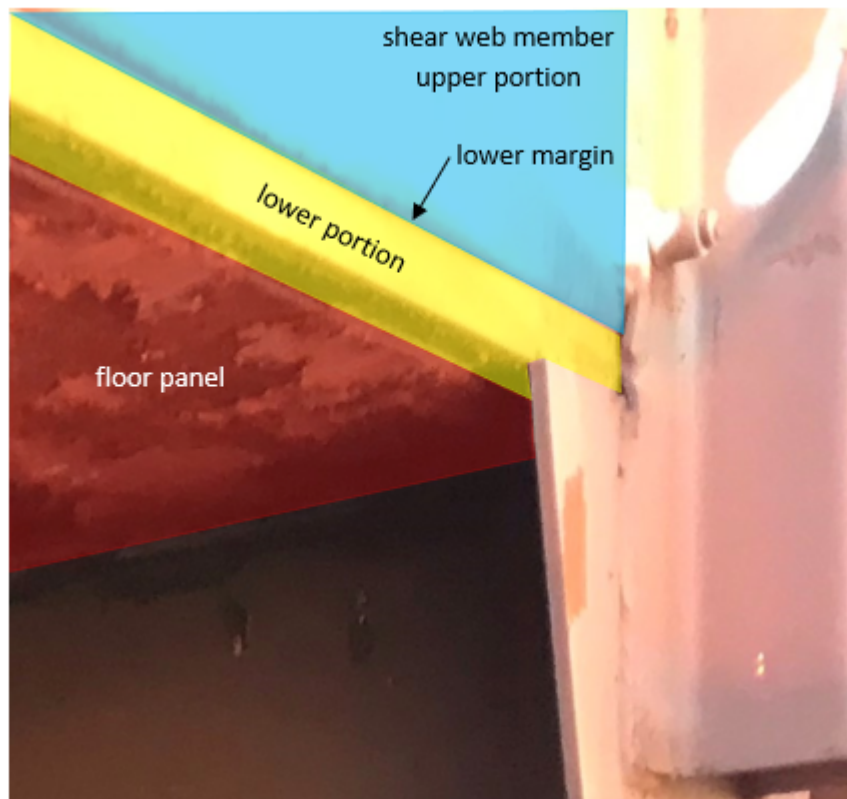
GRNBR0001886.

<sup>1</sup> This limitation corresponds to limitation 3[b] in Exhibit A of NSC's Preliminary Infringement Contentions, which do not identify a limitation 3[a].



GRNBR0001894.

Additionally, or in the alternative, Southern Woodchip discloses and/or renders obvious this limitation, as set forth below, for example:




GRNBR0001886.

Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Southern Woodchip must be found to meet this limitation for purposes of invalidity.

To the extent that Southern Woodchip does not disclose "said shear web member includes an upper portion and a lower portion; said upper portion having a lower margin; said lower portion being attached along said lower margin to said upper portion," it would have been obvious to a PHOSITA to combine and/or modify Southern Woodchip with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including the claimed "said shear web member includes an



		upper portion and a lower portion; said upper portion having a lower margin; said lower portion being attached along said lower margin to said upper portion.”
[3b] <sup>2</sup>	and said lower portion being mated directly to said at least one floor panel.	<p>Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, the said lower portion of the shear web member of Southern Woodchip is directly mated to said at least one floor panel:</p>  <p>GRNBR0001886.</p>

<sup>2</sup> This limitation corresponds to limitation 3[c] in Exhibit A of NSC’s Preliminary Infringement Contentions.



GRNBR0001894.


Additionally, or in the alternative, Southern Woodchip discloses and/or renders obvious this limitation, as set forth below, for example:




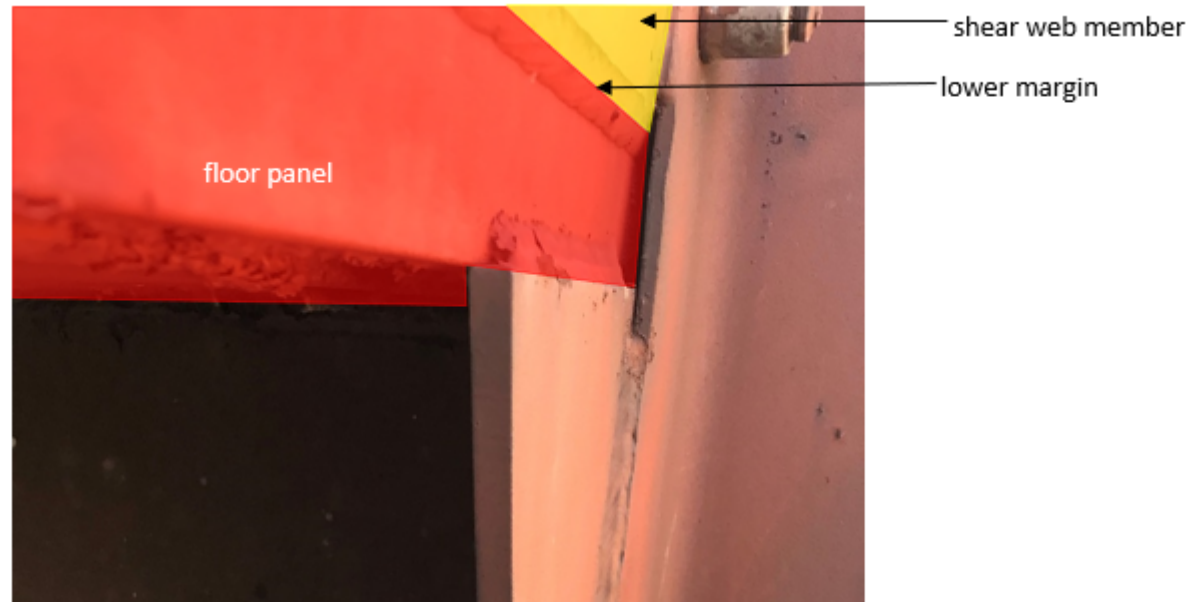
GRNBR0001886.

Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Southern Woodchip must be found to meet this limitation for purposes of invalidity.

To the extent that Southern Woodchip does not disclose "said lower portion being mated directly to said at least one floor panel," it would have been obvious to a PHOSITA to combine and/or modify Southern Woodchip with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including the claimed "said lower portion being mated directly to said at least one floor panel."

4.	The rail road gondola car of claim 3 wherein	As set forth above, Southern Woodchip discloses and/or renders obvious each and every limitation of claim 3.
[4a]	said lower portion lies outboard of said upper portion.	To the extent that Southern Woodchip does not disclose “said lower portion l[y]ing outboard of said upper portion,” it would have been obvious to a PHOSITA to combine and/or modify Southern Woodchip with one or more other prior art references as set forth in Greenbrier’s Cover Materials to these invalidity contentions, such combination and/or modification including the claimed “said lower portion l[y]ing outboard of said upper portion.”
8.	The rail road gondola car of claim 1 wherein	As set forth above, Southern Woodchip discloses and/or renders obvious each and every limitation of claim 1.
[8a]	said shear web member is predominantly planar.	<p>Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, Southern Woodchip has a shear web member that is predominantly planar:</p>  <p>GRNBR0001881.</p>
9.	The rail road gondola car of claim 1 wherein	As set forth above, Southern Woodchip discloses and/or renders obvious each and every limitation of claim 1.

[9a]	said shear web member stands normal to said at least one floor panel.	<p>Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, Southern Woodchip has a shear web member that stands normal to said at least one floor panel:</p>  <p>GRNBR0001894.</p> <p>Additionally, or in the alternative, Southern Woodchip discloses and/or renders obvious this limitation, as set forth below, for example:</p>
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GRNBR0001894.



GRNBR0001886.

Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Southern Woodchip must be found to meet this limitation for purposes of invalidity.

To the extent that Southern Woodchip does not disclose "said shear web member stands normal to said at least one floor panel," it would have been obvious to a PHOSITA to combine and/or modify Southern Woodchip with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including the claimed "said shear web member stands normal to said at least one floor panel."



11.	The rail road gondola car of claim 1 wherein	As set forth above, Southern Woodchip discloses and/or renders obvious each and every limitation of claim 1.
[11a]	a majority of said floor is made from one said floor panel.	<p>On information and belief, Southern Woodchip discloses and/or renders obvious this limitation. Greenbrier is seeking additional discovery to establish that Southern Woodchip discloses and/or renders obvious this limitation, and will supplement its invalidity contentions accordingly pursuant to the Scheduling Order.</p> <p>Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then, on information and belief, Southern Woodchip must be found to meet this limitation for purposes of invalidity.</p> <p>To the extent that Southern Woodchip does not disclose "a majority of said floor is made from one said floor panel," it would have been obvious to a PHOSITA to combine and/or modify Southern Woodchip with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including the claimed "a majority of said floor is made from one said floor panel."</p>
12.	The rail road gondola car of claim 1 wherein	As set forth above, Southern Woodchip discloses and/or renders obvious each and every limitation of claim 1.
[12a]	said car is free of side sills.	To the extent "side sills" is not found indefinite as used in the '519 patent, Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, Southern Woodchip is free of side sills:




GRNBR0001881.

Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Southern Woodchip must be found to meet this limitation for purposes of invalidity.

To the extent that Southern Woodchip is not "free of side sills," it would have been obvious to a PHOSITA to combine and/or modify Southern Woodchip with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including a "car ... free of side sills."

13.	The rail road gondola car of claim 1 wherein	As set forth above, Southern Woodchip discloses and/or renders obvious each and every limitation of claim 1.
[13a]	said gondola car includes a center sill,	Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, Southern Woodchip includes a center sill.

		 <p>center sill</p> <p>GRNBR0001885.</p>
[13b]	said center sill has a pair of spaced apart webs extending downwardly from said at least one floor panel,	Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, the center sill of Southern Woodchip has a pair of spaced apart webs extending downwardly from the at least one floor panel:

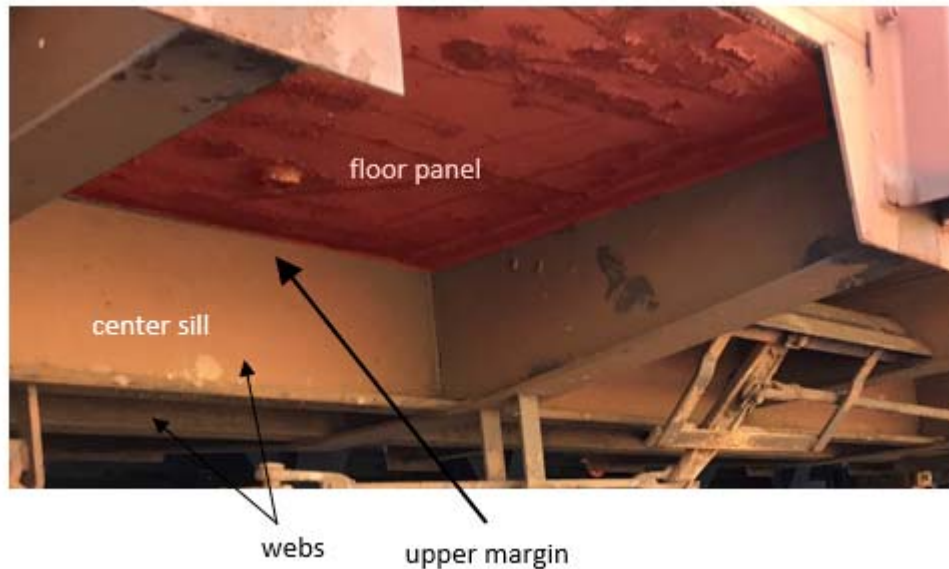


GRNBR0001885.

Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Southern Woodchip must be found to meet this limitation for purposes of invalidity.

To the extent that Southern Woodchip does not disclose a "center sill ha[ving] a pair of spaced apart webs extending downwardly from said at least one floor panel," it would have been obvious to a PHOSITA to combine and/or modify Southern Woodchip with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including the claimed "center sill ha[ving] a pair of spaced apart webs extending downwardly from said at least one floor panel."

[13c]	and said webs each have an upper margin mated to said at least one floor panel.	Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, the webs of the center sill of Southern Woodchip each have an upper margin mated to said at least one floor panel, as shown on one side of the center sill:
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GRNBR0001885.

Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Southern Woodchip must be found to meet this limitation for purposes of invalidity.

To the extent that Southern Woodchip does not disclose "webs each hav[ing] an upper margin mated to said at least one floor panel," it would have been obvious to a PHOSITA to combine and/or modify Southern Woodchip with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including the claimed "webs each hav[ing] an upper margin mated to said at least one floor panel."

14.	The rail road gondola car of claim 1 wherein	As set forth above, Southern Woodchip discloses and/or renders obvious each and every limitation of claim 1.
[14a]	said gondola car includes cross-bearers,	Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, Southern Woodchip includes cross-bearers:

		 <p>cross-bearers</p> <p>GRNBR0001885.</p>
[14b]	and said cross-bearers have webs, said webs having upper margins mated directly to said at least one floor panel.	Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, said cross-bearers of Southern Woodchip have webs, said webs having upper margins mated directly to said at least one floor panel:





GRNBR0001885.

Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Southern Woodchip must be found to meet this limitation for purposes of invalidity.

To the extent that Southern Woodchip does not disclose "cross-bearers hav[ing] webs, said webs having upper margins mated directly to said at least one floor panel," it would have been obvious to a PHOSITA to combine and/or modify Southern Woodchip with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including the claimed "cross-bearers hav[ing] webs, said webs having upper margins mated directly to said at least one floor panel."

15. A rail road gondola car comprising:

To the extent the preamble is a limitation, Southern Woodchip discloses and/or renders obvious this limitation. *See* Claim 1, preamble.



[15a]	a gondola car body carried by railroad car trucks for rolling motion along rail road tracks;	Southern Woodchip discloses and/or renders obvious this limitation. <i>See</i> Claim 1[a].
[15b]	said gondola car body having a longitudinal centerline;	Southern Woodchip discloses and/or renders obvious this limitation. <i>See</i> Claim 1[b].
[15c]	said gondola car body having a floor and a wall structure standing upwardly of said floor,	Southern Woodchip discloses and/or renders obvious this limitation. <i>See</i> Claim 1[c].
[15d]	said floor and said wall structure defining a lading receptacle;	Southern Woodchip discloses and/or renders obvious this limitation. <i>See</i> Claim 1[d].
[15e]	said gondola car body including a pair of lengthwise running side beams, said side beams defining portions of said wall structure;	Southern Woodchip discloses and/or renders obvious this limitation. <i>See</i> Claim 1[f].
[15f]	said side beams each having an upper margin, and a longitudinally running shear web member extending predominantly downwardly of said upper margin;	Southern Woodchip discloses and/or renders obvious this limitation. <i>See</i> Claim 1[g].
[15g]	said floor including at least one floor panel;	Southern Woodchip discloses and/or renders obvious this limitation. <i>See</i> Claim 1[e].
[15h]	said at least one floor panel and said shear web member being directly mated together;	Southern Woodchip discloses and/or renders obvious this limitation. <i>See</i> Claim 1[i].
[15i]	and said at least one floor panel extends laterally away from said longitudinal centerline past said shear web member.	To the extent that Southern Woodchip does not disclose that “said at least one floor panel extends laterally away from said longitudinal centerline past said shear web member,” it would have been obvious to a PHOSITA to combine and/or modify Southern Woodchip with one or more other prior art references as set forth in Greenbrier’s Cover Materials to these invalidity contentions, such combination and/or modification including the claimed “said at least one floor panel extends laterally away from said longitudinal centerline past said shear web member.”

16.	The rail road gondola car of claim 15 wherein	To the extent that Southern Woodchip does not disclose each and every limitation of claim 15, it would have been obvious to a PHOSITA to combine and/or modify Southern Woodchip with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including each and every limitation of claim 15.
[16a]	said car is free of side sills.	To the extent "side sills" is not found indefinite as used in the '519 patent, Southern Woodchip discloses and/or renders obvious this limitation. <i>See</i> Claim 12[a].
18.	The rail road gondola car of claim 15 wherein	To the extent that Southern Woodchip does not disclose each and every limitation of claim 15, it would have been obvious to a PHOSITA to combine and/or modify Southern Woodchip with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including each and every limitation of claim 15.
[18a]	said gondola car includes a center sill,	Southern Woodchip discloses and/or renders obvious this limitation. <i>See</i> Claim 13[a].
[18b]	said center sill has a pair of spaced apart webs extending downwardly from said at least one floor panel,	Southern Woodchip discloses and/or renders obvious this limitation. <i>See</i> Claim 13[b].
[18c]	and said webs each have an upper margin mated to said at least one floor panel.	Southern Woodchip discloses and/or renders obvious this limitation. <i>See</i> Claim 13[c].
19.	The rail road gondola car of claim 15 wherein	To the extent that Southern Woodchip does not disclose each and every limitation of claim 15, it would have been obvious to a PHOSITA to combine and/or modify Southern Woodchip with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including each and every limitation of claim 15.
[19a]	said gondola car includes cross bearers,	Southern Woodchip discloses and/or renders obvious this limitation. <i>See</i> Claim 14[a].
[19b]	and said cross-bearers have webs, said webs having upper margins mated directly to said at least one floor panel.	Southern Woodchip discloses and/or renders obvious this limitation. <i>See</i> Claim 14[b].

22.	A rail road gondola car comprising:	To the extent the preamble is a limitation, Southern Woodchip discloses and/or renders obvious this limitation. <i>See</i> Claim 1, preamble.
[22a]	a gondola car body carried by railroad car trucks for rolling motion along rail road tracks;	Southern Woodchip discloses and/or renders obvious this limitation. <i>See</i> Claim 1[a].
[22b]	said gondola car body having a longitudinal centerline;	Southern Woodchip discloses and/or renders obvious this limitation. <i>See</i> Claim 1[b].
[22c]	said gondola car body having a floor and a wall structure standing upwardly of said floor,	Southern Woodchip discloses and/or renders obvious this limitation. <i>See</i> Claim 1[c].
[22d]	said floor and said wall structure defining a lading receptacle;	Southern Woodchip discloses and/or renders obvious this limitation. <i>See</i> Claim 1[d].
[22e]	said gondola car body including a pair of lengthwise running side beams, said side beams defining portions of said wall structure;	Southern Woodchip discloses and/or renders obvious this limitation. <i>See</i> Claim 1[f].
[22f]	said side beams each having an upper margin, and a longitudinally running shear web member extending predominantly downwardly of said upper margin;	Southern Woodchip discloses and/or renders obvious this limitation. <i>See</i> Claim 1[g].
[22g]	said floor including at least one floor panel;	Southern Woodchip discloses and/or renders obvious this limitation. <i>See</i> Claim 1[e].
[22h]	said at least one floor panel and said shear web member being directly mated together;	Southern Woodchip discloses and/or renders obvious this limitation. <i>See</i> Claim 1[i].
[22i]	a centersill;	Southern Woodchip discloses and/or renders obvious this limitation. <i>See</i> Claim 13[a].
[22j]	said center sill has a pair of spaced apart webs extending	Southern Woodchip discloses and/or renders obvious this limitation. <i>See</i> Claim 13[b].

	downwardly from said at least one floor panel,	
[22k]	said webs each have an upper margin mated to said at least one floor panel;	Southern Woodchip discloses and/or renders obvious this limitation. <i>See</i> Claim 13[c].
[22l]	said gondola car includes at least one cross-bearer,	Southern Woodchip discloses and/or renders obvious this limitation. <i>See</i> Claim 14[a].
[22m]	said at least one cross-bearer has at least one web, said web of said at least one cross-bearer has an upper margin mated directly to said at least one floor panel;	Southern Woodchip discloses and/or renders obvious this limitation. <i>See</i> Claim 14[b].
[22n]	and said at least one floor panel defines an upper flange of said center sill and said at least one cross-bearer,	<p>Southern Woodchip discloses and/or renders obvious this limitation. As set forth above, for example, the center sill and the at least one cross-bearer of Southern Woodchip mate directly to the floor, and the at least one floor panel defines the upper flange of the center sill and of said at least one cross-bearer. <i>See</i> Claim 22[k], 22[m].</p> <p>Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Southern Woodchip must be found to meet this limitation for purposes of invalidity.</p> <p>To the extent that Southern Woodchip does not disclose "said at least one floor panel defines an upper flange of said center sill and said at least one cross-bearer," it would have been obvious to a PHOSITA to combine and/or modify Southern Woodchip with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including the claimed "said at least one floor panel defines an upper flange of said center sill and said at least one cross-bearer."</p>
[22o]	and a bottom flange of at least one of said side beams.	Southern Woodchip discloses and/or renders obvious this limitation. As set forth above, for example, the at least one floor panel of Southern Woodchip mates directly to the shear web member and defines the bottom flange of at least one of said side beams. <i>See</i> Claim 22[h].

		<p>Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Southern Woodchip must be found to meet this limitation for purposes of invalidity.</p> <p>To the extent that Southern Woodchip does not disclose "a bottom flange of at least one of said side beams," it would have been obvious to a PHOSITA to combine and/or modify Southern Woodchip with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including the claimed "bottom flange of at least one of said side beams."</p>
23.	The rail road gondola car of claim 22 wherein	As set forth above, Southern Woodchip discloses and/or renders obvious each and every limitation of claim 22.
[23a]	said rail road gondola car is free of any other member defining a center sill top flange.	<p>Southern Woodchip discloses and/or renders obvious this limitation. As set forth above, for example, the webs of the center sill mate directly to the floor and is free of any other member defining a center sill top flange. <i>See</i> Claim 22[k].</p> <p>Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Southern Woodchip must be found to meet this limitation for purposes of invalidity.</p> <p>To the extent that Southern Woodchip does not disclose "said rail road gondola car is free of any other member defining a center sill top flange," it would have been obvious to a PHOSITA to combine and/or modify Southern Woodchip with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including the claimed "said rail road gondola car is free of any other member defining a center sill top flange."</p>
24.	The rail road gondola car of claim 22 wherein	As set forth above, Southern Woodchip discloses and/or renders obvious each and every limitation of claim 22.
[24a]	said rail road gondola car is free of any other member	Southern Woodchip discloses and/or renders obvious this limitation. As set forth above, for example, the at least one web of the at least one cross-bearer of Southern Woodchip mates directly to the floor. The each of the cross-bearers is similarly mated to the floor and therefore Southern Woodchip is free of any other member defining a cross-bearer top flange. <i>See</i> Claim 22[m].


	defining cross-bearer top flanges.	<p>Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Southern Woodchip must be found to meet this limitation for purposes of invalidity.</p> <p>To the extent that Southern Woodchip does not disclose "said rail road gondola car is free of any other member defining cross-bearer top flanges," it would have been obvious to a PHOSITA to combine and/or modify Southern Woodchip with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including the claimed "said rail road gondola car is free of any other member defining cross-bearer top flanges."</p>
25.	The rail road gondola car of claim 22 wherein	As set forth above, Southern Woodchip discloses and/or renders obvious each and every limitation of claim 22.
[25a]	said rail road gondola car is free of any other member defining a bottom flange of said side beams.	<p>Southern Woodchip discloses and/or renders obvious this limitation. As set forth above, for example, the at least one floor panel of Southern Woodchip mates directly to the shear web member, and the floor defines the bottom flange of at least one of said side beams. Southern Woodchip is therefore free of any other member defining a bottom flange of said side beams. <i>See</i> Claim 22[h].</p> <p>Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Southern Woodchip must be found to meet this limitation for purposes of invalidity.</p> <p>To the extent that Southern Woodchip does not disclose "said rail road gondola car is free of any other member defining a bottom flange of said side beams," it would have been obvious to a PHOSITA to combine and/or modify Southern Woodchip with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including the claimed "said rail road gondola car is free of any other member defining a bottom flange of said side beams."</p>

## **EXHIBIT B-1**

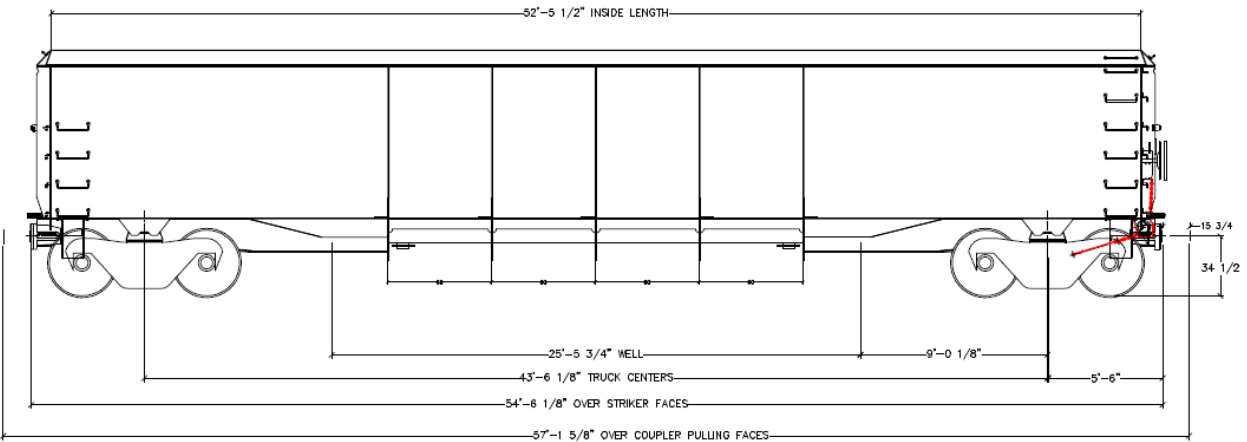
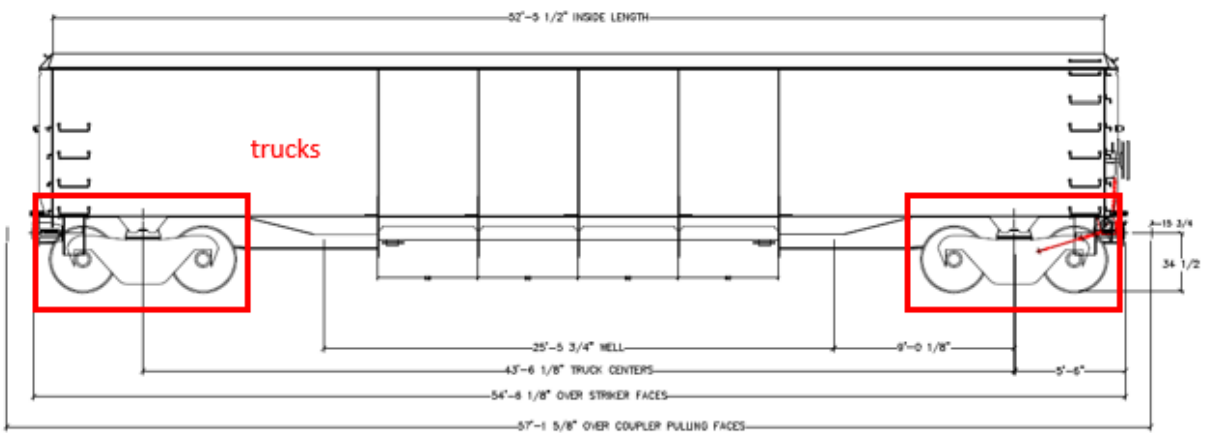



**EXHIBIT B-1****Invalidity Chart for U.S. Patent No. 7,878,125 over Brandenburg V-Bottom (Series BISX 30900 – 30949) (“Brandenburg V-Bottom”)**<sup>1</sup>


Brandenburg V-Bottom is prior art under at least 35 U.S.C. § 102(a) and § 102(b) because it was known or used by others in the United States, in public use in the United States, and/or on sale in the United States at least as early as February 2001.

Claims of U.S. Patent No. 7,878,125	Corresponding Disclosure
<p>1. A rail road gondola car, said rail road gondola car having:</p>	<p>To the extent the preamble is a limitation, Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, Brandenburg V-Bottom is a railroad gondola car:</p>  <p>GRNBR0001699.</p>

<sup>1</sup> This chart is based in part on arguments and other publicly-available material proffered in *National Steel Car Limited v. FreightCar America, Inc.*, 15-cv-3418 (N.D. Ill.). Greenbrier reserves the right to amend and/or supplement this chart based on further evidence developed.

		 <p>GRNBR0001693.</p>
[1a]	a lading containment receptacle mounted on a pair of spaced apart rail road car trucks for rolling motion along rail road tracks in a longitudinal direction;	<p>Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, Brandenburg V-Bottom has a lading containment receptacle mounted on a pair of spaced apart rail road car trucks for rolling motion along rail road tracks in a longitudinal direction:</p>  <p>GRNBR0001693.</p>

[1b]	first and second side beams defining first and second side walls of said receptacle;	<p>Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, Brandenburg V-Bottom has first and second side beams defining first and second side walls of said receptacle:</p>  <p>GRNBR0001699.</p>
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		 <p>side wall</p> <p>side beams</p> <p>side wall</p> <p>GRNBR0001709.</p>
[1c]	a deck defining a floor of said lading containment receptacle;	<p>Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, Brandenburg V-Bottom has a deck defining a floor of said lading containment receptacle:</p>



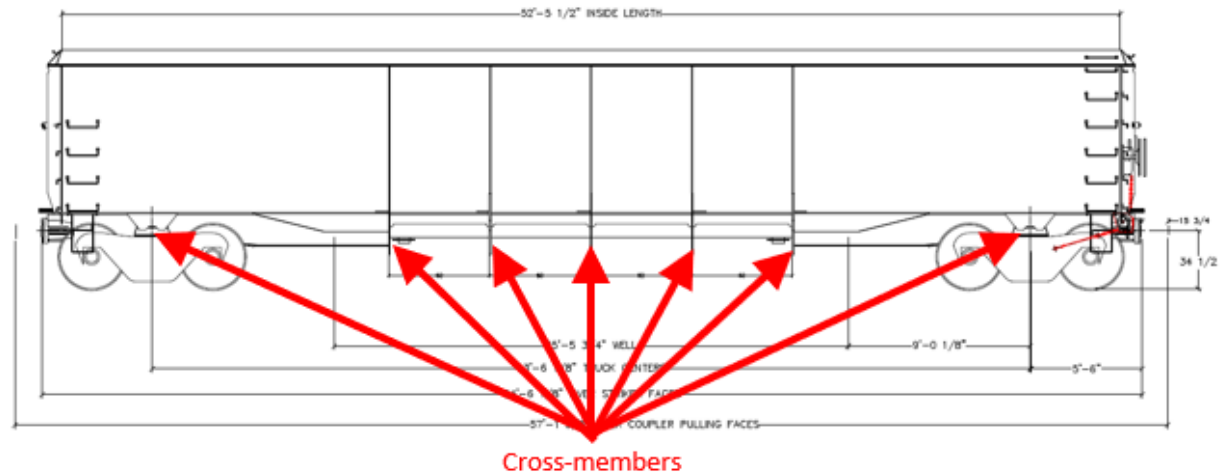
GRNBR0001709.

Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Brandenburg V-Bottom must be found to meet this limitation for purposes of invalidity.

[1d]	an array of cross-members extending cross-wise underneath said deck between said first and second side	Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, Brandenburg V-Bottom has an array of cross-members extending cross-wise underneath said deck between said first and second side walls; said array of cross-members including at least a first cross-member; said first cross-member having a first end and a second end; said first end
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walls; said array of cross-members including at least a first cross-member; said first cross-member having a first end and a second end; said first end being adjacent to said first side beam, said first cross-member of said array of cross-members extending laterally inboard of said first end;

being adjacent to said first side beam, said first cross-member of said array of cross-members extending laterally inboard of said first end:



GRNBR0001693.





GRNBR0001728.





GRNBR0001729.

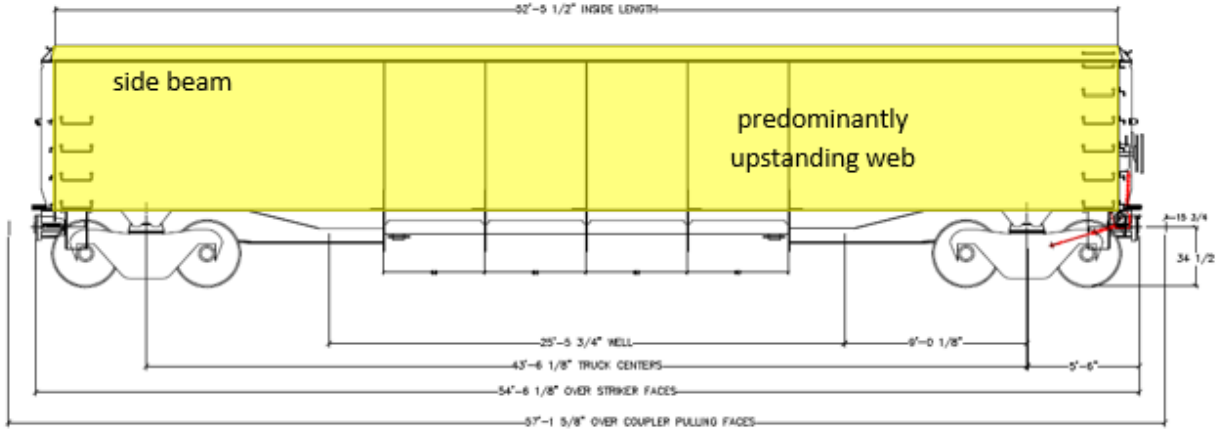
Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Brandenburg V-Bottom must be found to meet this limitation for purposes of invalidity.


[1e] said first side beam including a predominantly upstanding web running lengthwise along said car;

Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, the first side beam of Brandenburg V-Bottom includes a predominantly upstanding web running lengthwise along said car:



GRNBR0001709.

		 <p>GRNBR0001693.</p> <p>Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Brandenburg V-Bottom must be found to meet this limitation for purposes of invalidity.</p>
[1f]	an array of longitudinally spaced upstanding stiffeners mounted to reinforce said first side wall; said array of longitudinally spaced upstanding stiffeners including a first stiffener;	<p>Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, Brandenburg V-Bottom has an array of longitudinally spaced upstanding stiffeners mounted to reinforce said first side wall; said array of longitudinally spaced upstanding stiffeners including a first stiffener:</p>

		 <p>stiffeners</p> <p>GRNBR0001699.</p>
[1g]	said upstanding web of said first side beam extending upwardly of said deck;	<p>Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, the upstanding web of said first side beam of Brandenburg V-Bottom exten[s upwardly of said deck.</p>



GRNBR0001709.

Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Brandenburg V-Bottom must be found to meet this limitation for purposes of invalidity.

To the extent that Brandenburg V-Bottom does not disclose "said upstanding web of said first side beam extending upwardly of said deck," it would have been obvious to a PHOSITA to combine and/or modify Brandenburg V-Bottom with one or more other prior art references as set

		forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including the claimed "said upstanding web of said first side beam extending upwardly of said deck."
[1h]	said first side beam having a first web extension,	Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, the first side beam of Brandenburg V-Bottom includes a first web extension.



GRNBR0001694.

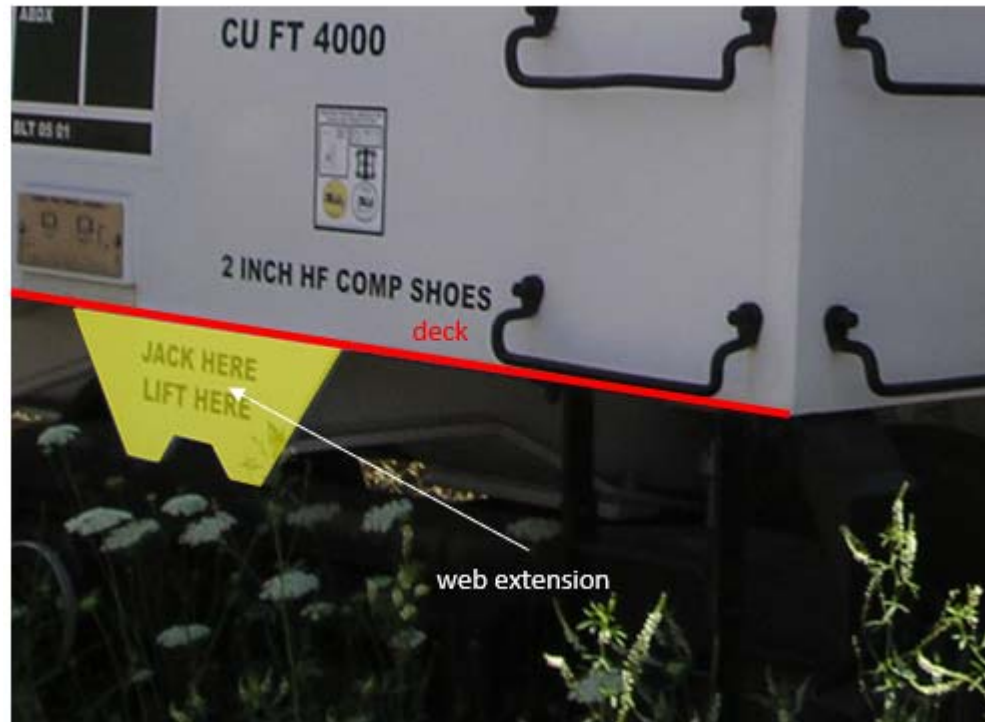
To the extent that Brandenburg V-Bottom does not disclose “said first side beam having a first web extension,” it would have been obvious to a PHOSITA to combine and/or modify Brandenburg V-Bottom with one or more other prior art references as set forth in Greenbrier’s



		Cover Materials to these invalidity contentions, such combination and/or modification including the claimed “said first side beam having a first web extension.”
[1i]	said first web extension extending predominantly downwardly of said deck, and said first web extension being mounted to said first end of said first cross-member;	Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, the first web extension of Brandenburg V-Bottom extends predominantly downwardly of said deck, and said first web extension is mounted to said first end of said first cross-member.



GRNBR0001694



GRNBR0001729.

Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Brandenburg V-Bottom must be found to meet this limitation for purposes of invalidity.


To the extent that Brandenburg V-Bottom does not disclose "said first web extension extending predominantly downwardly of said deck, and said first web extension being mounted to said first end of said first cross-member," it would have been obvious to a PHOSITA to combine and/or modify Brandenburg V-Bottom with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including the claimed "said first web extension extending predominantly


		downwardly of said deck, and said first web extension being mounted to said first end of said first cross-member.”
[1j]	there being web continuity between said first web extension and said upstanding web;	To the extent “web continuity” is not found indefinite as used in the ‘125 patent, Brandenburg V- Bottom discloses and/or renders obvious this limitation. For example, as set forth below, there is web continuity between said first web extension and said upstanding web of Brandenburg V- Bottom:




GRNBR0001694

Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if

		<p>the Accused Products are found to infringe, then Brandenburg V-Bottom must be found to meet this limitation for purposes of invalidity.</p> <p>To the extent that Brandenburg V-Bottom does not disclose “web continuity between said first web extension and said upstanding web,” it would have been obvious to a PHOSITA to combine and/or modify Brandenburg V-Bottom with one or more other prior art references as set forth in Greenbrier’s Cover Materials to these invalidity contentions, such combination and/or modification including the claimed “web continuity between said first web extension and said upstanding web.”</p>
[1k]	said first web extension having a lower margin downwardly distant from said deck;	<p>Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, the first web extension of Brandenburg V-Bottom has a lower margin downwardly distant from said deck:</p>  <p>GRNBR0001694</p> <p>Greenbrier’s invalidity contentions are made in view of NSC’s infringement contentions and in view of NSC’s apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if</p>

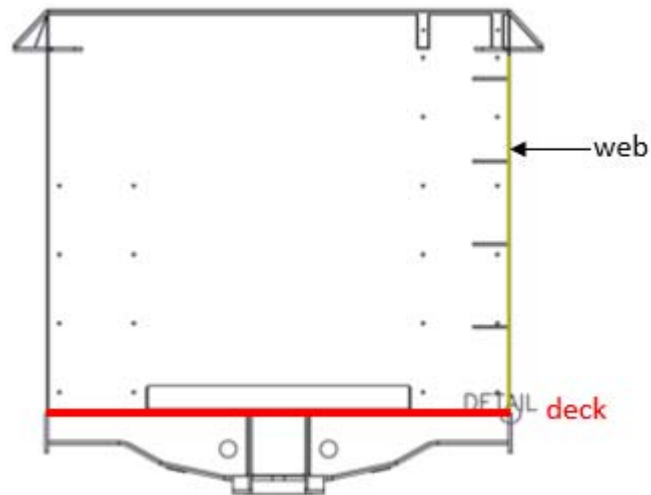
		the Accused Products are found to infringe, then Brandenburg V-Bottom must be found to meet this limitation for purposes of invalidity.
[11]	said first web extension being narrower at said lower margin than nearer to said deck, said first web extension having broadening wings to either side of said first end of said first cross-member.	<p>Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, the first web extension of Brandenburg V-Bottom is narrower at said lower margin than nearer to said deck, said first web extension having broadening wings to either side of said first end of said first cross-member:</p>  <p>GRNBR0001694</p> <p>Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Brandenburg V-Bottom must be found to meet this limitation for purposes of invalidity.</p>
11.	The rail road gondola car of claim 1 wherein:	As set forth above, Brandenburg V-Bottom discloses and/or renders obvious each and every limitation of claim 1.



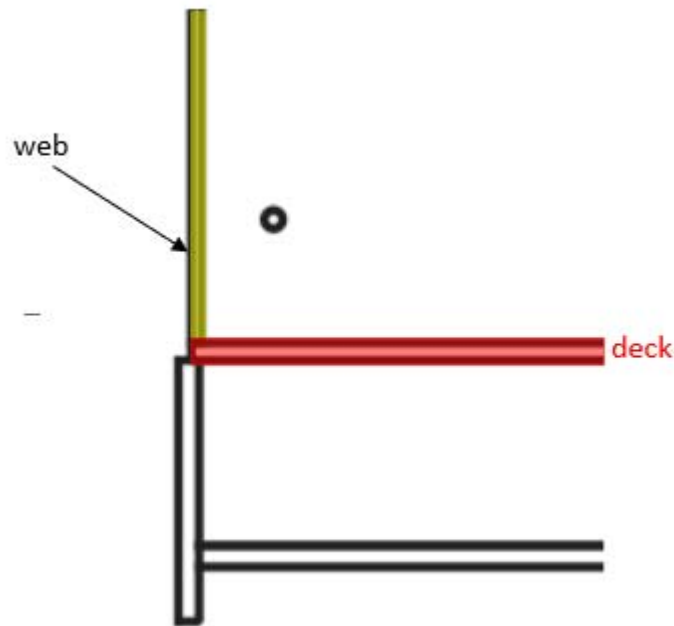
<p>[11a]</p>	<p>said web of said first side beam is welded directly to said deck,</p>	<p>Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, the web of the first side beam of Brandenburg V-Bottom is welded directly to said deck.</p>  <p>GRNBR0001728.</p>
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GRNBR0001703.




See ECF No. 201, Ex. F at 264 from *Nat'l Steel Car Ltd. v. FreightCar Am., Inc.*, Case No. 15-cv-3418 (N.D. Ill.).



See ECF No. 201, Ex. F at 264 from *Nat'l Steel Car Ltd. v. FreightCar Am., Inc.*, Case No. 15-cv-3418 (N.D. Ill.).

Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Brandenburg V-Bottom must be found to meet this limitation for purposes of invalidity.

To the extent that Brandenburg V-Bottom does not disclose a "web of said first side beam ... welded directly to said deck," it would have been obvious to a PHOSITA to combine and/or modify Brandenburg V-Bottom with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including the claimed "web of said first side beam ... welded directly to said deck."


[11b]	and said car is free of a side sill.	<p>To the extent “side sill” is not found indefinite as used in the ’125 patent, Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, Brandenburg V-Bottom is free of a side sill:</p>  <p>GRNBR0001699.</p> <p>Greenbrier’s invalidity contentions are made in view of NSC’s infringement contentions and in view of NSC’s apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Brandenburg V-Bottom must be found to meet this limitation for purposes of invalidity.</p> <p>To the extent that Brandenburg V-Bottom is not “free of a side sill,” it would have been obvious to a PHOSITA to combine and/or modify Brandenburg V-Bottom with one or more other prior art references as set forth in Greenbrier’s Cover Materials to these invalidity contentions, such combination and/or modification including the claimed “car ... free of a side sill.”</p>
15.	The rail road gondola car of claim 1 wherein:	As set forth above, Brandenburg V-Bottom discloses and/or renders obvious each and every limitation of claim 1.
[15a]	said car has first and second end walls, said lading containment receptacle	Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, Brandenburg V-Bottom has first and second end walls, said lading containment receptacle having a length defined between said end walls:

having a length defined  
between said end walls;




GRNBR0002007.



		 <p>GRNBR0001709.</p>
[15b]	said lading containment receptacle has a width defined between said first and second side beams;	<p>Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, Brandenburg V-Bottom has a width defined between said first and second side beams:</p>






		 <p>GRNBR0002007.</p>
[15c]	<p>said deck extends from said first end wall to said second end wall, and from said first side wall to said second side wall;</p>	<p>Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, the deck of Brandenburg V-Bottom extends from said first end wall to said second end wall, and from said first side wall to said second side wall:</p>



GRNBR0001709.

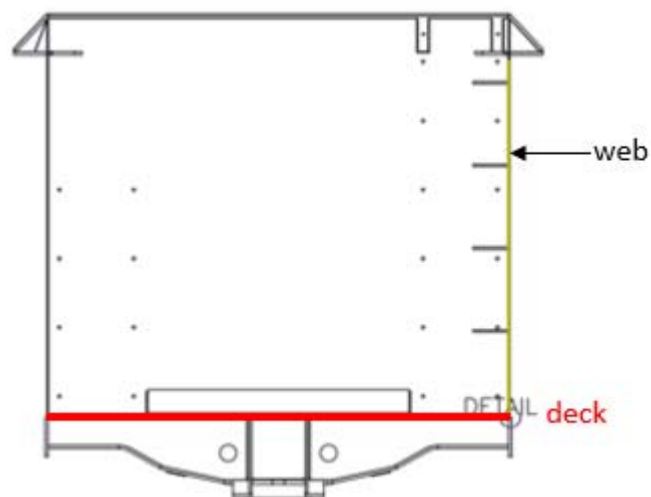
Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Brandenburg V-Bottom must be found to meet this limitation for purposes of invalidity.

To the extent that Brandenburg V-Bottom does not disclose a "deck extend[ing] from said first end wall to said second end wall, and from said first side wall to said second side wall," it would have been obvious to a PHOSITA to combine and/or modify Brandenburg V-Bottom with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity

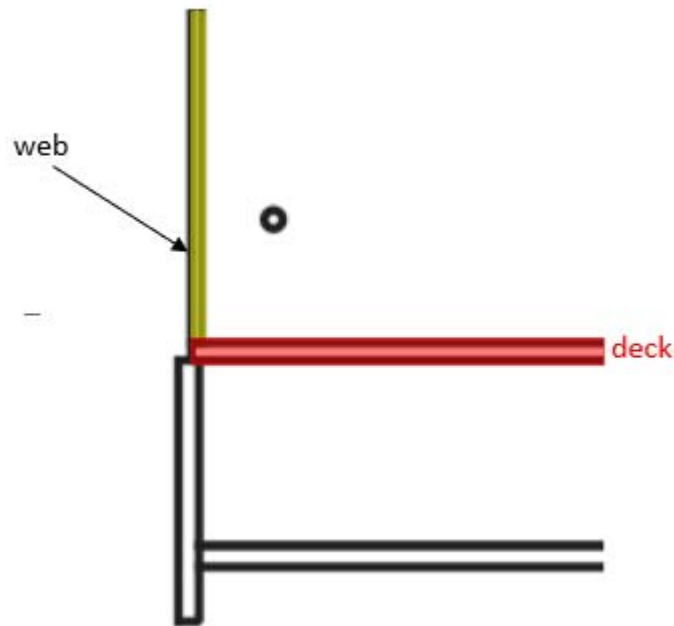
		contentions, such combination and/or modification including the claimed “deck extend[ing] from said first end wall to said second end wall, and from said first side wall to said second side wall.”
[15d]	said web of said first side wall is welded directly to said deck;	<p>Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, the web of the first side wall of Brandenburg V-Bottom is welded directly to said deck.</p>  <p>GRNBR0001728.</p>



GRNBR0001703.



See ECF No. 201, Ex. F at 264 from *Nat'l Steel Car Ltd. v. FreightCar Am., Inc.*, Case No. 15-cv-3418 (N.D. Ill.).




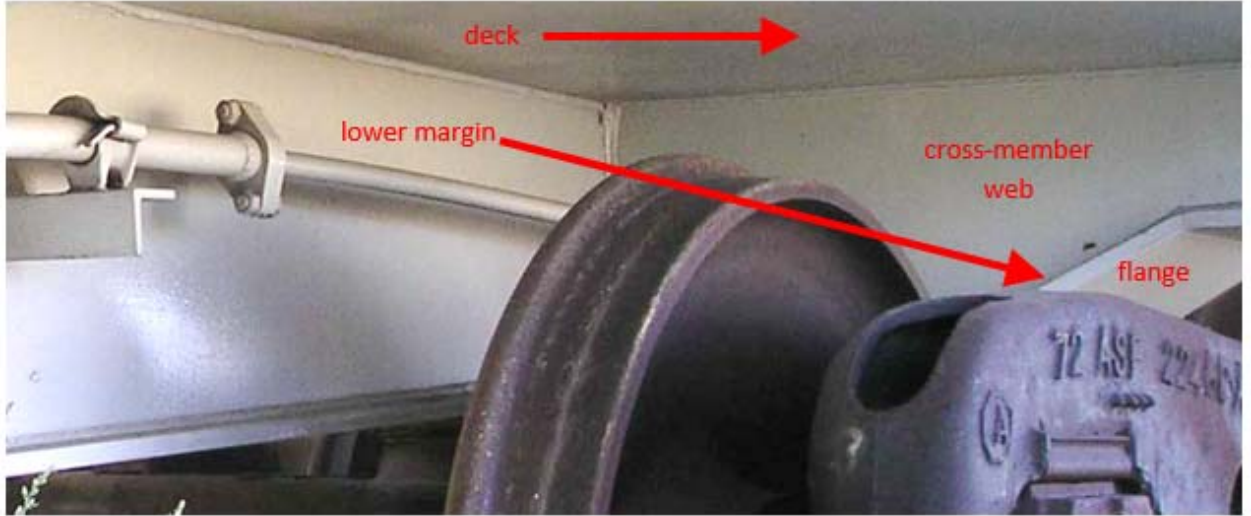
See ECF No. 201, Ex. F at 264 from *Nat'l Steel Car Ltd. v. FreightCar Am., Inc.*, Case No. 15-cv-3418 (N.D. Ill.).

Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Brandenburg V-Bottom must be found to meet this limitation for purposes of invalidity.

To the extent that Brandenburg V-Bottom does not disclose a "web of said first side wall ... welded directly to said deck," it would have been obvious to a PHOSITA to combine and/or modify Brandenburg V-Bottom with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including the claimed "web of said first side wall ... welded directly to said deck."



[15e]	<p>said first cross-member has a laterally running web, said laterally running web having an upper margin welded directly to said deck; said laterally running web extends predominantly downwardly of, said deck;</p>	<p>Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, the first cross-member of Brandenburg V-Bottom has a laterally running web, said laterally running web having an upper margin; and said laterally running web extends predominantly downwardly of, said deck.</p>  <p>See ECF No. 190-1 at 48 from <i>Nat'l Steel Car Ltd. v. FreightCar Am., Inc.</i>, Case No. 15-cv-3418 (N.D. Ill.).</p> <p>Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Brandenburg V-Bottom must be found to meet this limitation for purposes of invalidity.</p> <p>To the extent that Brandenburg V-Bottom does not disclose a "first cross-member ha[ving] a laterally running web, said laterally running web having an upper margin welded directly to said deck; said laterally running web extend[ing] predominantly downwardly of, said deck," it would have been obvious to a PHOSITA to combine and/or modify Brandenburg V-Bottom with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including the claimed "first cross-member</p>
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		ha[ving] a laterally running web, said laterally running web having an upper margin welded directly to said deck; said laterally running web extend[ing] predominantly downwardly of, said deck.”
[15f]	said laterally running web has a lower margin distant from said deck; said first cross-member has a laterally running flange mounted to said lower margin of said laterally running web, said flange being distant from said deck;	<p>Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, the laterally running web of the first cross-member of Brandenburg V-Bottom has a lower margin distant from said deck; said first cross-member has a laterally running flange mounted to said lower margin of said laterally running web, said flange being distant from said deck:</p>  <p>The photograph shows a close-up of a metal assembly. A horizontal metal bar is labeled 'lower margin' with a red arrow. Above it, a horizontal surface is labeled 'deck' with a red arrow. To the right, a curved metal structure is labeled 'cross-member web' with a red arrow. Further right, a flange is labeled 'flange' with a red arrow. The flange has some markings, including '72 LSI 22448'.</p> <p>See ECF No. 190-1 at 48 from <i>Nat’l Steel Car Ltd. v. FreightCar Am., Inc.</i>, Case No. 15-cv-3418 (N.D. Ill.).</p> <p>Greenbrier’s invalidity contentions are made in view of NSC’s infringement contentions and in view of NSC’s apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Brandenburg V-Bottom must be found to meet this limitation for purposes of invalidity.</p> <p>To the extent that Brandenburg V-Bottom does not disclose “said laterally running web ha[ving] a lower margin distant from said deck; said first cross-member ha[ving] a laterally running flange mounted to said lower margin of said laterally running web, said flange being distant from said</p>



		deck,” it would have been obvious to a PHOSITA to combine and/or modify Brandenburg V-Bottom with one or more other prior art references as set forth in Greenbrier’s Cover Materials to these invalidity contentions, such combination and/or modification including the claimed “said laterally running web ha[ving] a lower margin distant from said deck; said first cross-member ha[ving] a laterally running flange mounted to said lower margin of said laterally running web, said flange being distant from said deck.”
[15g]	and at least half of said deck is formed from a single monolithic piece of steel sheet;	Brandenburg V-Bottom discloses and/or renders obvious this limitation. As set forth below, for example, at least half of said deck is formed from a single monolithic piece of steel sheet.

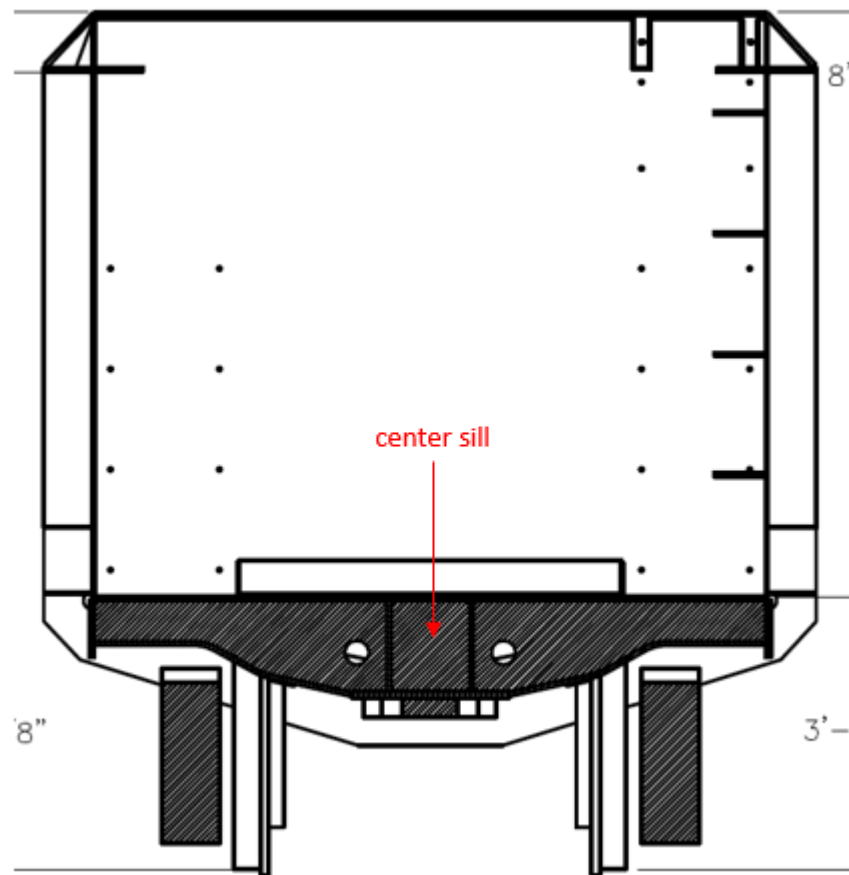


GRNBR0001709.


Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Brandenburg V-Bottom must be found to meet this limitation for purposes of invalidity.

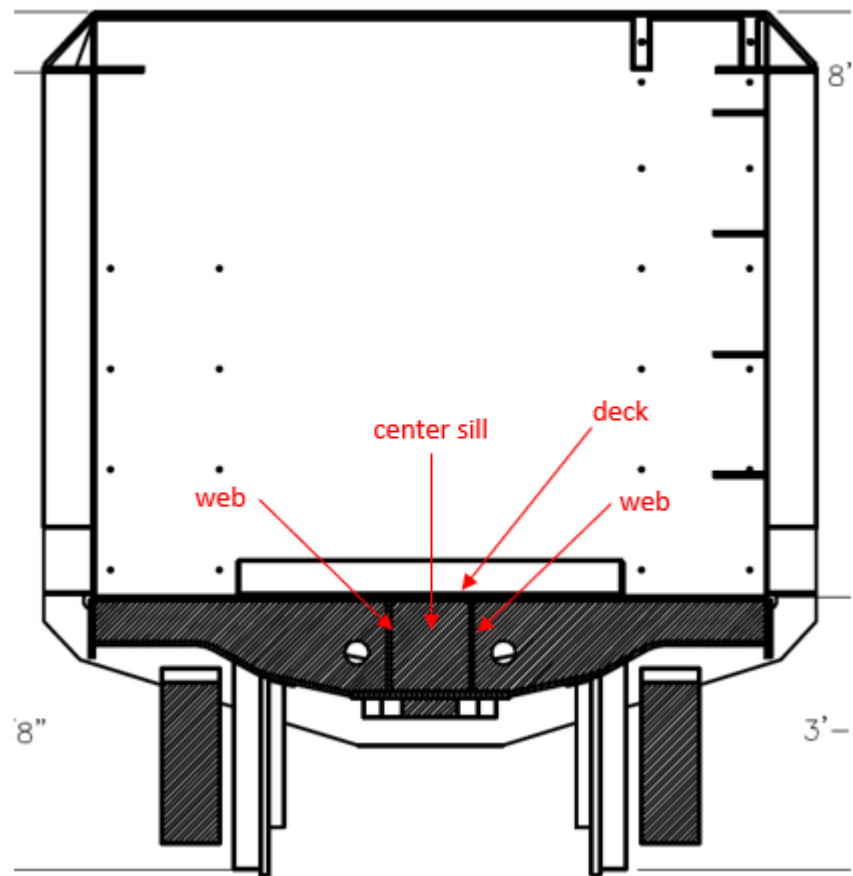
To the extent that Brandenburg V-Bottom does not disclose "at least half of said deck is formed from a single monolithic piece of steel sheet," it would have been obvious to a PHOSITA to combine and/or modify the Brandenburg V-Bottom Gondola with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such

		combination and/or modification including the claimed “at least half of said deck is formed from a single monolithic piece of steel sheet.”
[15h]	whereby said steel sheet defines both a bottom flange of said first side beam and a top flange of said first cross-member.	<p>Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth above, the deck of Brandenburg V-Bottom is welded directly to the web of the side wall and defines the bottom flange of at least one of said side beams. <i>See</i> Claim 15[d]. Additionally, the deck of Brandenburg V-Bottom is welded directly to the web of the at least one cross-member and defines the top flange of the cross-member. <i>See</i> Claim 15[e].</p> <p>Greenbrier’s invalidity contentions are made in view of NSC’s infringement contentions and in view of NSC’s apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Brandenburg V-Bottom must be found to meet this limitation for purposes of invalidity.</p> <p>To the extent that Brandenburg V-Bottom does not disclose “said steel sheet defines both a bottom flange of said first side beam and a top flange of said first cross-member,” it would have been obvious to a PHOSITA to combine and/or modify Brandenburg V-Bottom with one or more other prior art references as set forth in Greenbrier’s Cover Materials to these invalidity contentions, such combination and/or modification including the claimed “said steel sheet defines both a bottom flange of said first side beam and a top flange of said first cross-member.”</p>
16.	The rail road gondola car of claim 15 wherein:	As set forth above, Brandenburg V-Bottom discloses and/or renders obvious each and every limitation of claim 15.
[16a]	said rail road gondola car has a center sill;	Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, Brandenburg V-Bottom has a center sill.



GRNBR0001693.

		 <p>GRNBR0001728.</p>
[16b]	said center sill has first and second webs extending downwardly of said deck, said first and second webs of said center sill being laterally spaced apart from each other and running longitudinally;	<p>Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, the center sill of Brandenburg V-Bottom has first and second webs extending downwardly of said deck, said first and second webs of said center sill being laterally spaced apart from each other and running longitudinally:</p>



GRNBR0001693.




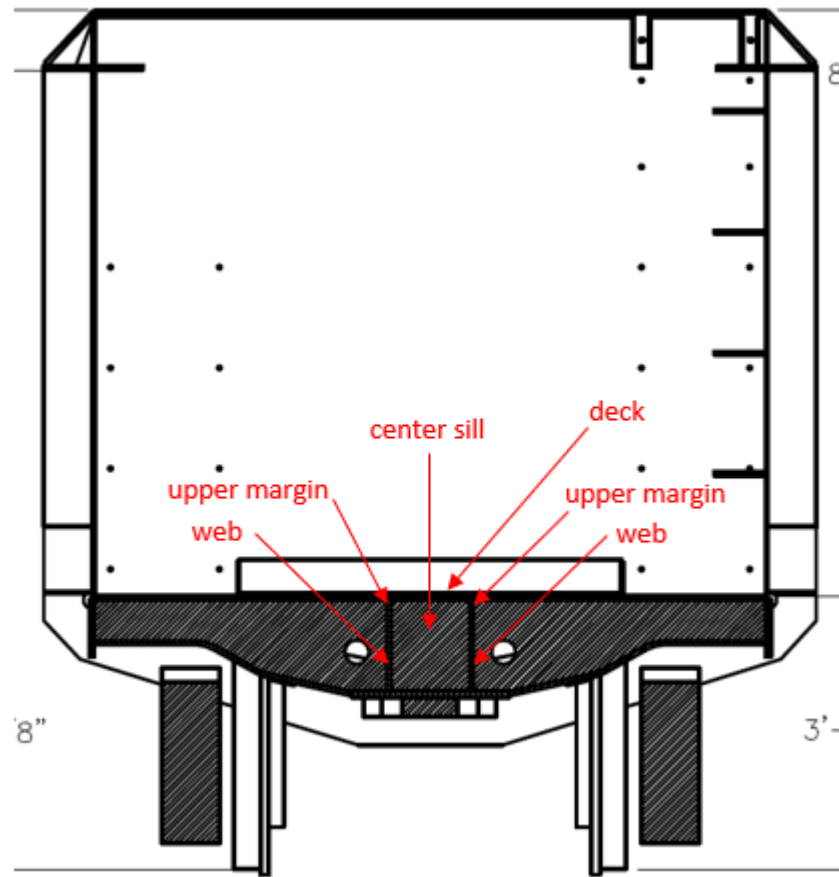
GRNBR0001728.

Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Brandenburg V-Bottom must be found to meet this limitation for purposes of invalidity.

To the extent that Brandenburg V-Bottom does not disclose "said center sill has first and second webs . . . of said center sill being laterally spaced apart from each other and running longitudinally," it would have been obvious to a PHOSITA to combine and/or modify Brandenburg V-Bottom with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including a "said center sill has first and second webs . . . of said center sill being laterally spaced apart from each other and running longitudinally."



[16c]	and said first and second webs of said center sill each having an upper margin welded directly to said monolithic piece of steel sheet,	<p>Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, the first and second webs of the center sill of Brandenburg V-Bottom each have an upper margin welded directly to said monolithic piece of steel sheet.</p>  <p>GRNBR0001728.</p>
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GRNBR0001693.

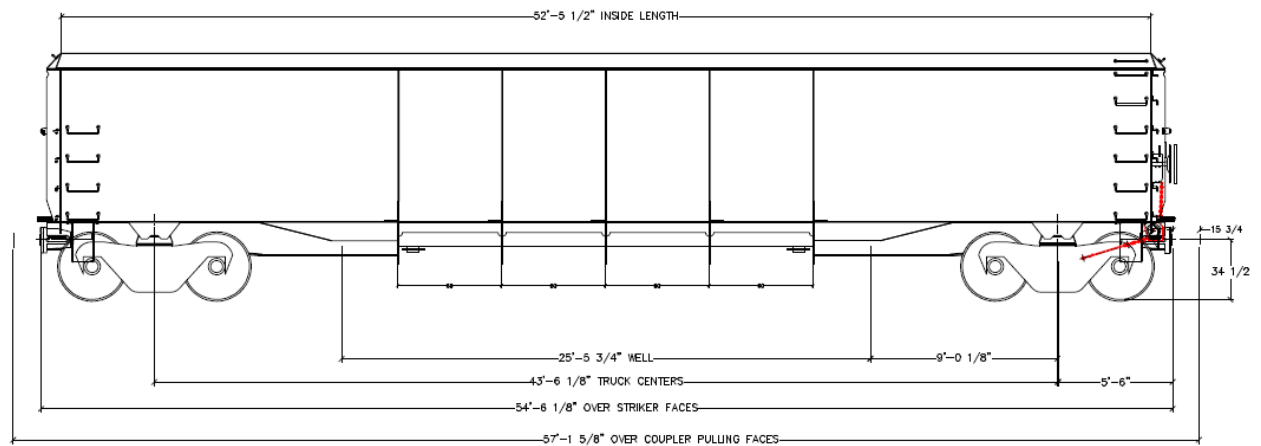
Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Brandenburg V-Bottom must be found to meet this limitation for purposes of invalidity.

To the extent that Brandenburg V-Bottom does not disclose "said first and second webs of said center sill each having an upper margin welded directly to said monolithic piece of steel sheet," it

		would have been obvious to a PHOSITA to combine and/or modify Brandenburg V-Bottom with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including the claimed "said first and second webs of said center sill each having an upper margin welded directly to said monolithic piece of steel sheet."
[16d]	whereby said steel sheet defines a top cover plate of said center sill.	<p>Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth above, the deck of Brandenburg V-Bottom is welded directly to the webs of the center sill and defines a top cover plate of said center sill. <i>See</i> Claim 16[c].</p> <p>Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Brandenburg V-Bottom must be found to meet this limitation for purposes of invalidity.</p> <p>To the extent that Brandenburg V-Bottom does not disclose "said steel sheet defin[ing] a top cover plate of said center sill," it would have been obvious to a PHOSITA to combine and/or modify Brandenburg V-Bottom with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including the claimed "said steel sheet defin[ing] a top cover plate of said center sill."</p>
18.	A rail road gondola car, said rail road gondola car comprising:	To the extent the preamble is a limitation, Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, Brandenburg V-Bottom is a railroad gondola car:



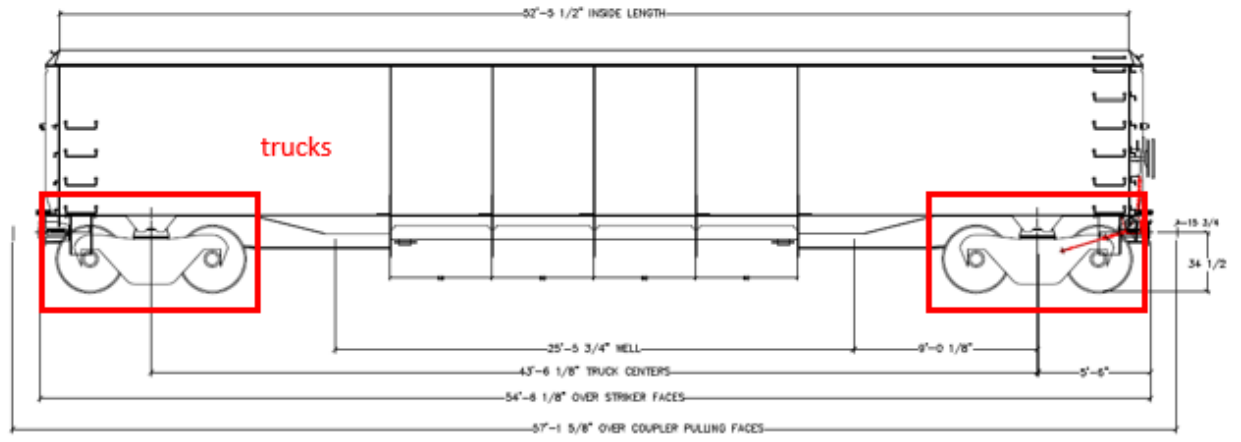
GRNBR0001699.



GRNBR0001693.

[18a] a car body carried by rail road car trucks for rolling motion in a longitudinal direction along rail road car tracks;


Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, Brandenburg V-Bottom has a car body carried by rail road car trucks for rolling motion in a longitudinal direction along rail road car tracks:

		 <p>GRNBR0001693.</p>
[18b]	a first side wall and a second side wall spaced apart cross-wise;	<p>Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, Brandenburg V-Bottom has a first side wall and a second side wall spaced apart cross-wise:</p>



GRNBR0002007.




		 <p>GRNBR0001709.</p>
[18c]	a first end wall and a second end wall spaced apart in the longitudinal direction;	<p>Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, Brandenburg V-Bottom has a first end wall and a second end wall spaced apart in the longitudinal direction:</p>





GRNBR0002007.

		 <p>GRNBR0001709.</p>
[18d]	a substantially flat deck;	<p>Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, Brandenburg V-Bottom has a substantially flat deck:</p>



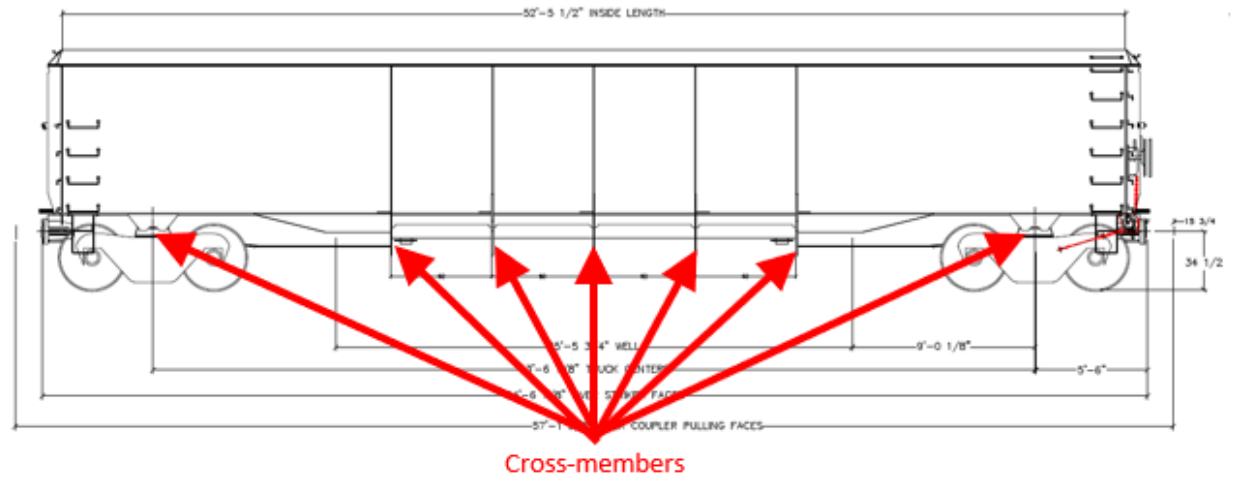
GRNBR0001709.

Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Brandenburg V-Bottom must be found to meet this limitation for purposes of invalidity.

To the extent that Brandenburg V-Bottom does not disclose "a substantially flat deck," it would have been obvious to a PHOSITA to combine and/or modify Brandenburg V-Bottom with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including the claimed "substantially flat deck."

[18e] an array of cross-members, said array including a first cross-member;

Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, Brandenburg V-Bottom has an array of cross-members, said array including a first cross-member:




GRNBR0001693.



GRNBR0001728.



		 <p>GRNBR0001729.</p> <p>Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Brandenburg V-Bottom must be found to meet this limitation for purposes of invalidity.</p>
[18f]	said deck having a first end at which said first end wall is mounted, and a second end at which said second end wall is mounted;	<p>Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, the deck of Brandenburg V-Bottom has a first end at which said first end wall is mounted, and a second end at which said second end wall is mounted:</p>



GRNBR0002007.





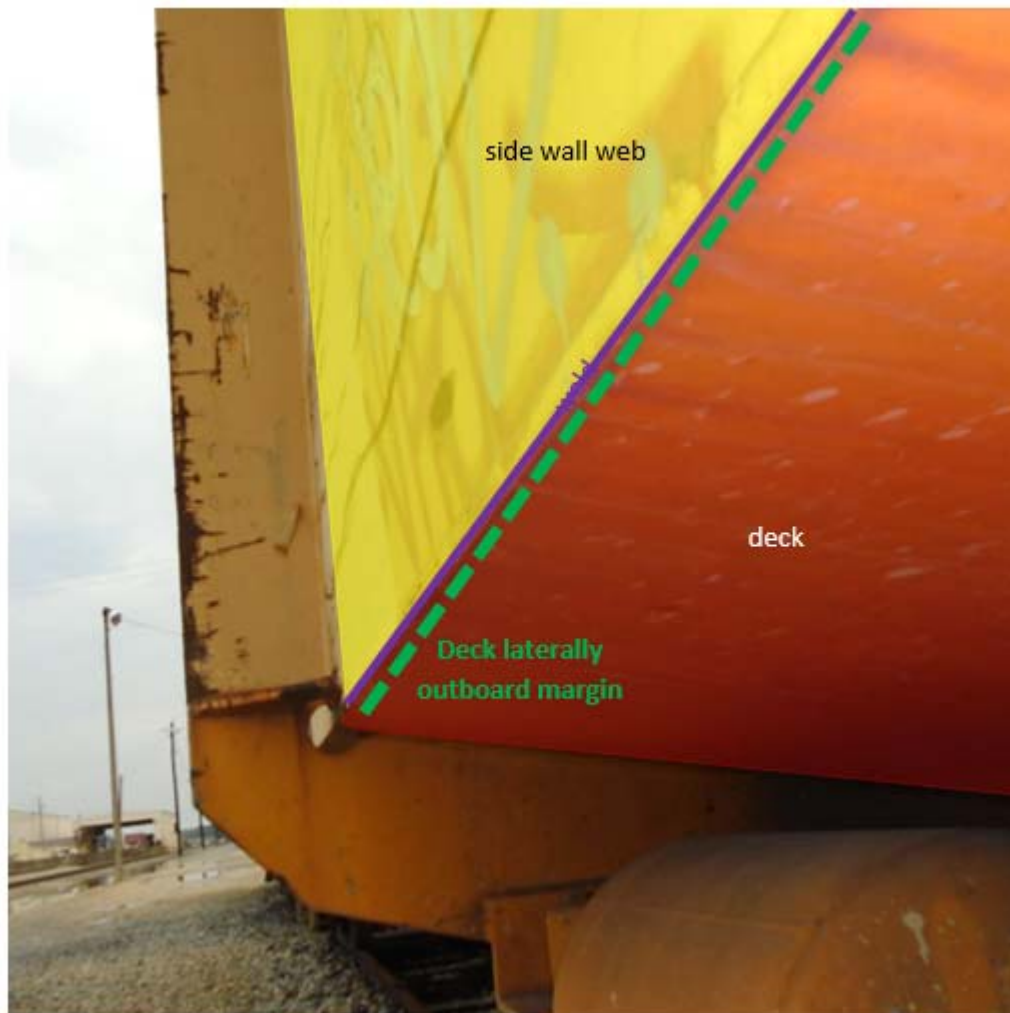
GRNBR0001709.

Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Brandenburg V-Bottom must be found to meet this limitation for purposes of invalidity.

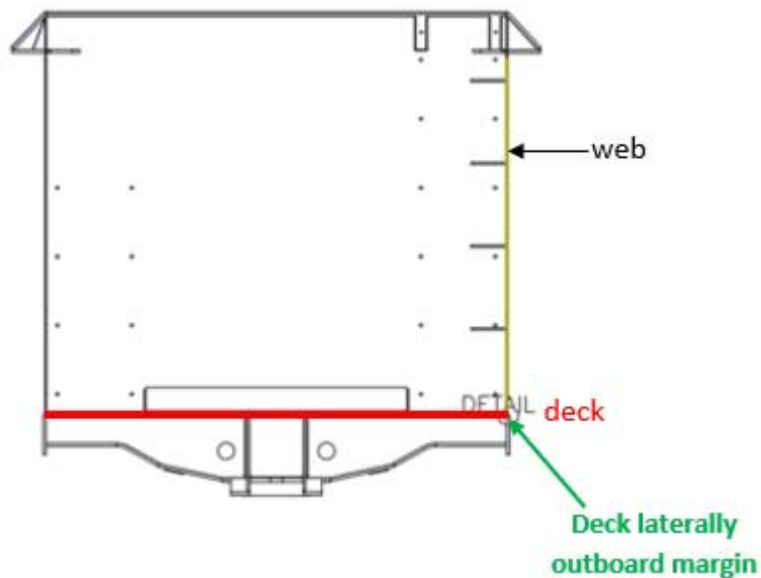
[18g] said deck having a first laterally outboard margin and a second laterally outboard margin; said first side wall

Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, the deck of Brandenburg V-Bottom has a first laterally outboard margin and a second laterally outboard margin, said first side wall has a first side wall web running along said first laterally outboard margin, said first side wall web being directly connected to said deck:

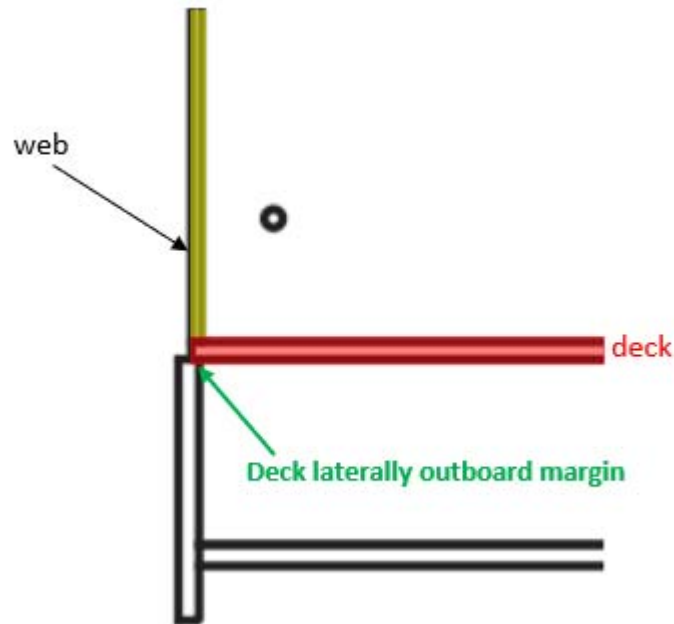
has a first side wall web running along said first laterally outboard margin, said first side wall web being directly connected to said deck;



GRNBR0001714.



See ECF No. 201, Ex. F at 264 from *Nat'l Steel Car Ltd. v. FreightCar Am., Inc.*, Case No. 15-cv-3418 (N.D. Ill.).




See ECF No. 201, Ex. F at 264 from *Nat'l Steel Car Ltd. v. FreightCar Am., Inc.*, Case No. 15-cv-3418 (N.D. Ill.).

The structure shown above is the same on the other side of the gondola car.

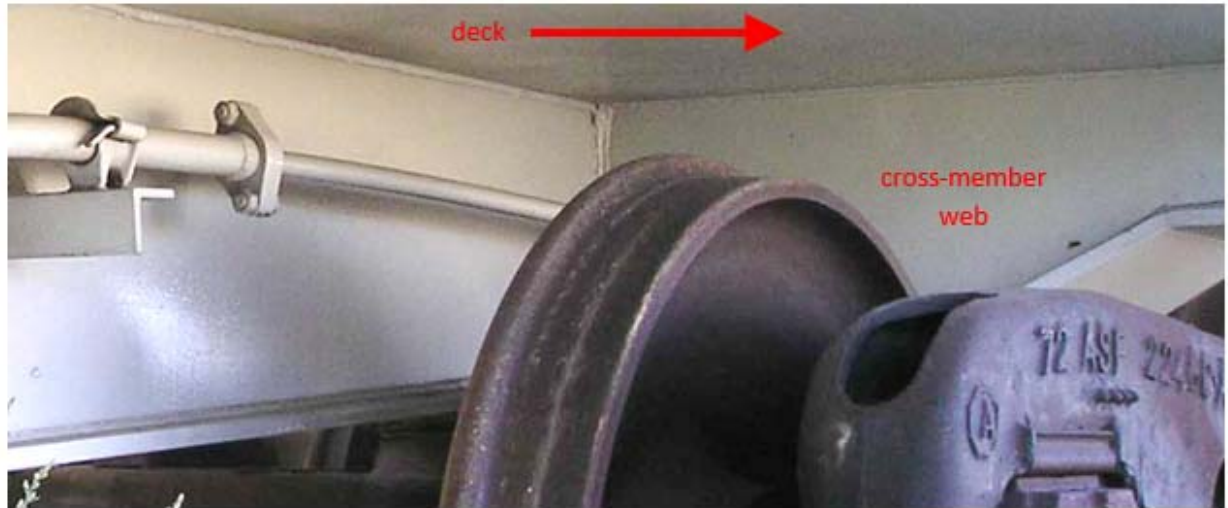
Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Brandenburg V-Bottom must be found to meet this limitation for purposes of invalidity.

To the extent that Brandenburg V-Bottom does not disclose a "deck having a first laterally outboard margin and a second laterally outboard margin; said first side wall ha[ving] a first side wall web running along said first laterally outboard margin, said first side wall web being directly connected to said deck," it would have been obvious to a PHOSITA to combine and/or modify Brandenburg V-Bottom with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including the claimed "deck having a first laterally outboard margin and a second laterally outboard

		margin; said first side wall ha[ving] a first side wall web running along said first laterally outboard margin, said first side wall web being directly connected to said deck.”
[18h]	said second side wall has a second side wall web running along said second laterally outboard margin, said second side wall web being directly connected to said deck	<p>Brandenburg V-Bottom discloses and/or renders obvious this limitation. The structure shown above for claim element 18[g] is the same on the other side of Brandenburg V-Bottom.</p> <p>Greenbrier’s invalidity contentions are made in view of NSC’s infringement contentions and in view of NSC’s apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Brandenburg V-Bottom must be found to meet this limitation for purposes of invalidity.</p> <p>To the extent that Brandenburg V-Bottom does not disclose “said second side wall ha[ving] a second side wall web running along said second laterally outboard margin, said second side wall web being directly connected to said deck,” it would have been obvious to a PHOSITA to combine and/or modify Brandenburg V-Bottom with one or more other prior art references as set forth in Greenbrier’s Cover Materials to these invalidity contentions, such combination and/or modification including the claimed “said second side wall ha[ving] a second side wall web running along said second laterally outboard margin, said second side wall web being directly connected to said deck.”</p>
[18i]	whereby said deck defines a bottom flange of said first and second side walls;	<p>Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, the deck of Brandenburg V-Bottom is welded directly to the webs of the side walls and defines a bottom flange of said first and second side walls. <i>See</i> Claim 18[g]-[h]. <i>See also</i> Claim 15[e]-[f].</p> <p>Greenbrier’s invalidity contentions are made in view of NSC’s infringement contentions and in view of NSC’s apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Brandenburg V-Bottom must be found to meet this limitation for purposes of invalidity.</p> <p>To the extent that Brandenburg V-Bottom does not disclose “said deck defin[ing] a bottom flange of said first and second side walls,” it would have been obvious to a PHOSITA to combine and/or modify Brandenburg V-Bottom with one or more other prior art references as set forth in</p>

		Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including the claimed "said deck defin[ing] a bottom flange of said first and second side walls."
[18j]	said first cross-member having a laterally running web, said laterally running web being directly connected to said deck, said laterally running web extending downwardly of said deck,	<p>Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, the first cross-member of Brandenburg V-Bottom has a laterally running web, said laterally running web being directly connected to said deck, said laterally running web extending downwardly of said deck:</p>  <p>GRNBR0001728.</p>





See ECF No. 190-1 at 48 from *Nat'l Steel Car Ltd. v. FreightCar Am., Inc.*, Case No. 15-cv-3418 (N.D. Ill.).

Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Brandenburg V-Bottom must be found to meet this limitation for purposes of invalidity.

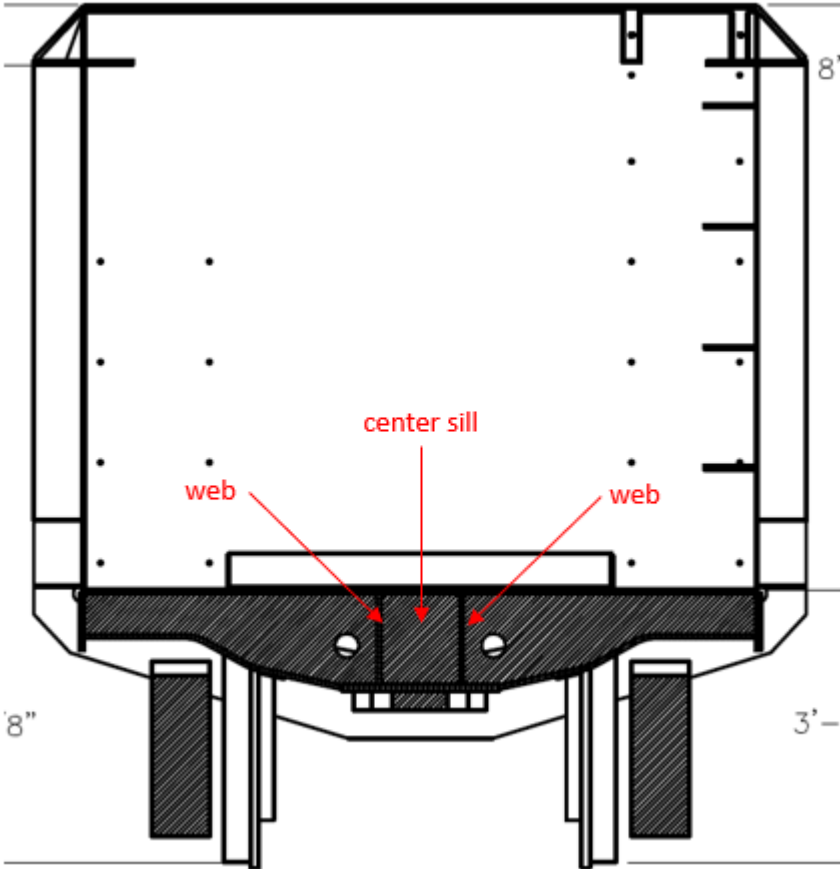
To the extent that Brandenburg V-Bottom does not disclose "said first cross-member having a laterally running web, said laterally running web being directly connected to said deck, said laterally running web extending downwardly of said deck," it would have been obvious to a PHOSITA to combine and/or modify Brandenburg V-Bottom with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including the claimed "said first cross-member having a laterally running web, said laterally running web being directly connected to said deck, said laterally running web extending downwardly of said deck."


[18k] whereby said deck defines an upper flange of said first cross-member;

Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth above, the deck of Brandenburg V-Bottom is welded directly to the web of the at least one cross-member and defines an upper flange of the first cross-member. See Claim 18[j].



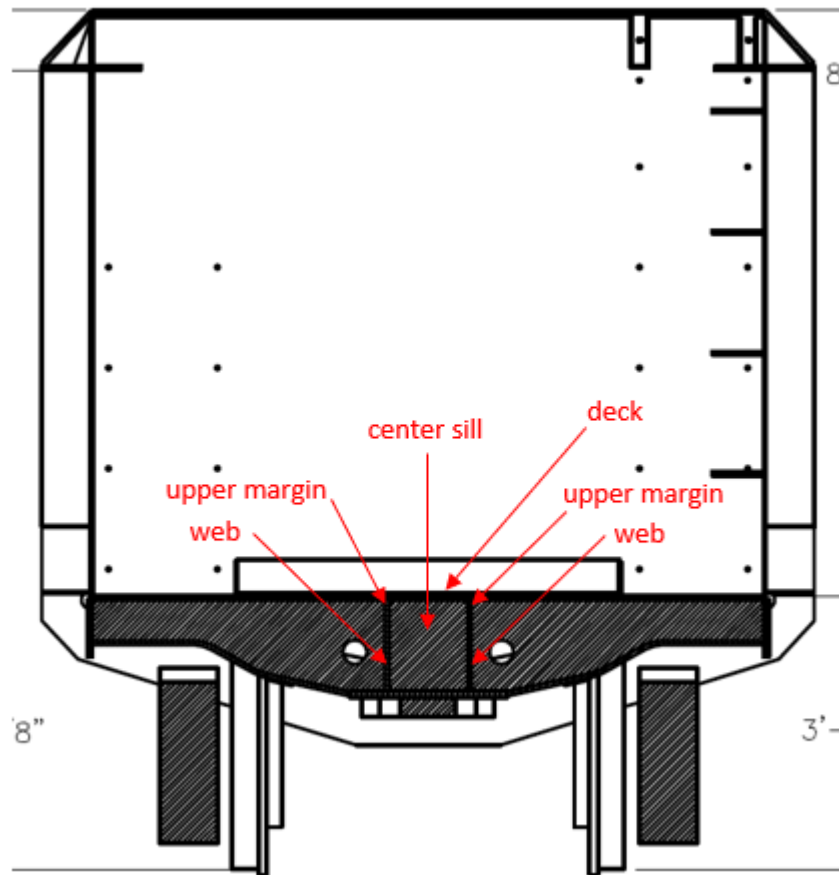
		<p>Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Brandenburg V-Bottom must be found to meet this limitation for purposes of invalidity.</p> <p>To the extent that Brandenburg V-Bottom does not disclose "said deck defin[ing] an upper flange of said first cross-member," it would have been obvious to a PHOSITA to combine and/or modify Brandenburg V-Bottom with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including the claimed "said deck defin[ing] an upper flange of said first cross-member."</p>
[18]	and at least half of said deck is formed from a single monolithic piece of steel sheet.	<p>Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth above, for example, at least half of said deck of Brandenburg V-Bottom is formed from a single monolithic piece of steel sheet. <i>See</i> Claim 15[g].</p> <p>Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Brandenburg V-Bottom must be found to meet this limitation for purposes of invalidity.</p> <p>To the extent that Brandenburg V-Bottom does not disclose "at least half of said deck is formed from a single monolithic piece of steel sheet," it would have been obvious to a PHOSITA to combine and/or modify Brandenburg V-Bottom with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including the claimed "at least half of said deck is formed from a single monolithic piece of steel sheet."</p>
19.	The rail road gondola car of claim 18 wherein	As set forth above, Brandenburg V-Bottom discloses and/or renders obvious each and every limitation of claim 18.

[19a]	said car body includes a center sill, said center sill having first and second laterally spaced apart longitudinally running center sill webs,	<p>Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, Brandenburg V-Bottom body includes a center sill, said center sill having first and second laterally spaced apart longitudinally running center sill webs:</p>  <p>GRNBR0001693.</p>
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		 <p>GRNBR0001728.</p> <p>To the extent that Brandenburg V-Bottom does not disclose a “car body includ[ing] a center sill, said center sill having first and second laterally spaced apart longitudinally running center sill webs,” it would have been obvious to a PHOSITA to combine and/or modify Brandenburg V-Bottom with one or more other prior art references as set forth in Greenbrier’s Cover Materials to these invalidity contentions, such combination and/or modification including the claimed “car body includ[ing] a center sill, said center sill having first and second laterally spaced apart longitudinally running center sill webs.”</p>
[19b]	said first and second center sill webs each having an upper margin welded directly to said deck,	<p>Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth below, the webs of the center sills of Brandenburg V-Bottom each have an upper margin welded directly to said deck:</p>



GRNBR0001728.



GRNBR0001693.

Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Brandenburg V-Bottom must be found to meet this limitation for purposes of invalidity.

To the extent that Brandenburg V-Bottom does not disclose "said first and second center sill webs each having an upper margin welded directly to said deck," it would have been obvious to a PHOSITA to combine and/or modify Brandenburg V-Bottom with one or more other prior art


		references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including the claimed "said first and second center sill webs each having an upper margin welded directly to said deck."
[19c]	whereby said deck defines a top cover plate of said center sill.	<p>Brandenburg V-Bottom discloses and/or renders obvious this limitation. For example, as set forth above, the deck of Brandenburg V-Bottom is welded directly to the webs of the center sill and defines a top cover plate of said center sill. <i>See</i> Claim 19[b].</p> <p>Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Brandenburg V-Bottom must be found to meet this limitation for purposes of invalidity.</p> <p>To the extent that Brandenburg V-Bottom does not disclose a "deck defin[ing] a top cover plate of said center sill," it would have been obvious to a PHOSITA to combine and/or modify Brandenburg V-Bottom with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including the claimed "deck defin[ing] a top cover plate of said center sill."</p>


## **EXHIBIT B-4**





**EXHIBIT B-4****Invalidity Chart for U.S. Patent No. 7,878,125 over the Southern Woodchip Gondola (Series SOU 139725-139874) (“Southern Woodchip”)**

Southern Woodchip is prior art under at least 35 U.S.C. § 102(a) and § 102(b) because it was known or used by others in the United States, in public use in the United States, and/or on sale in the United States at least as early as May 1970.


Claims of U.S. Patent No. 7,878,125		Corresponding disclosure
1.	A rail road gondola car, said rail road gondola car having:	<p>To the extent the preamble is a limitation, Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, Southern Woodchip is a railroad gondola car:</p>  <p>GRNBR0001952.</p>
[1a]	a lading containment receptacle mounted on a pair of spaced apart rail road car trucks for rolling motion along rail road tracks in a longitudinal direction;	<p>Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, Southern Woodchip has a lading containment receptacle mounted on a pair of spaced apart rail road car trucks for rolling motion along rail road tracks in a longitudinal direction:</p>


		 <p style="text-align: center; color: red;">trucks</p> <p>GRNBR0001952.</p>
[1b]	first and second side beams defining first and second side walls of said receptacle;	Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, Southern Woodchip has first and second side beams defining first and second side walls of said receptacle:


		 <p>side wall</p> <p>side wall</p> <p>SOUTHERN</p> <p>139844</p> <p>side beams</p>
[1c]	a deck defining a floor of said lading containment receptacle;	<p>GRNBR0002266.</p> <p>Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, Southern Woodchip has a deck defining a floor of said lading containment receptacle:</p>

		 <p>GRNBR0001952.</p> <p>Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Southern Woodchip must be found to meet this limitation for purposes of invalidity.</p>
[1d]	<p>an array of cross-members extending cross-wise underneath said deck between said first and second side walls; said array of cross-members including at least a first cross-member; said first cross-member having a first end and a second end; said first end being adjacent to said first side beam, said first cross-member of said array of cross-members extending</p>	<p>Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, Southern Woodchip has an array of cross-members extending cross-wise underneath said deck between said first and second side walls; said array of cross-members including at least a first cross-member; said first cross-member having a first end and a second end; said first end being adjacent to said first side beam, said first cross-member of said array of cross-members extending laterally inboard of said first end:</p>




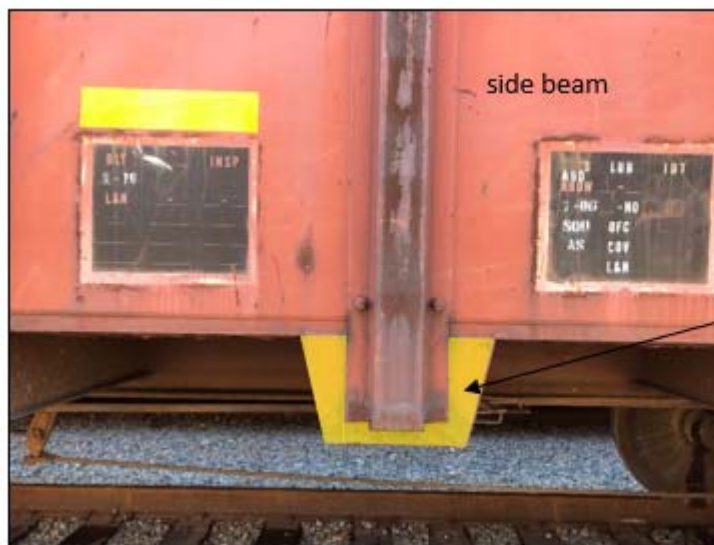
	laterally inboard of said first end;	 <p>cross-members</p> <p>GRNBR0001885.</p> <p>Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Southern Woodchip must be found to meet this limitation for purposes of invalidity.</p>
[1e]	said first side beam including a predominantly upstanding web running lengthwise along said car;	Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, the first side beam of Southern Woodchip includes a predominantly upstanding web running lengthwise along said car:

		 <p>predominantly upstanding web</p> <p>GRNBR0001881.</p> <p>Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Southern Woodchip must be found to meet this limitation for purposes of invalidity.</p>
[1f]	an array of longitudinally spaced upstanding stiffeners mounted to reinforce said first side wall; said array of longitudinally spaced upstanding stiffeners including a first stiffener;	<p>Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, Southern Woodchip has an array of longitudinally spaced upstanding stiffeners mounted to reinforce said first side wall; said array of longitudinally spaced upstanding stiffeners including a first stiffener:</p>

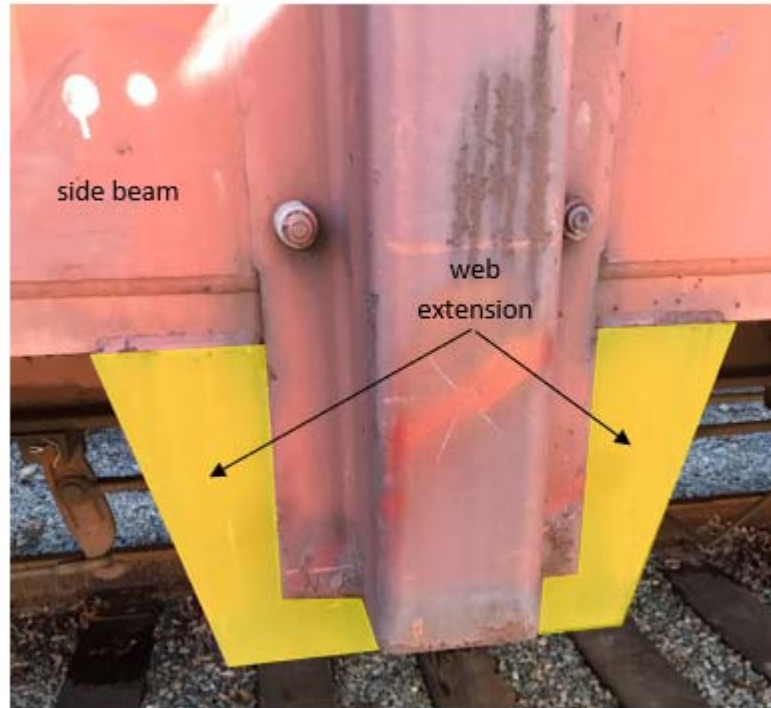
		 <p style="text-align: center; color: red;">stiffeners</p> <p>GRNBR0001881.</p>
[1g]	said upstanding web of said first side beam extending upwardly of said deck;	Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, the upstanding web of said first side beam of Southern Woodchip extends upwardly of said deck:



		 <p>GRNBR0001881.</p> <p>Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Southern Woodchip must be found to meet this limitation for purposes of invalidity.</p> <p>To the extent that Southern Woodchip does not disclose "said upstanding web of said first side beam extending upwardly of said deck," it would have been obvious to a PHOSITA to combine and/or modify Southern Woodchip with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including the claimed "said upstanding web of said first side beam extending upwardly of said deck."</p>
[1h]	said first side beam having a first web extension,	Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, the first side beam of Southern Woodchip includes a first web extension:

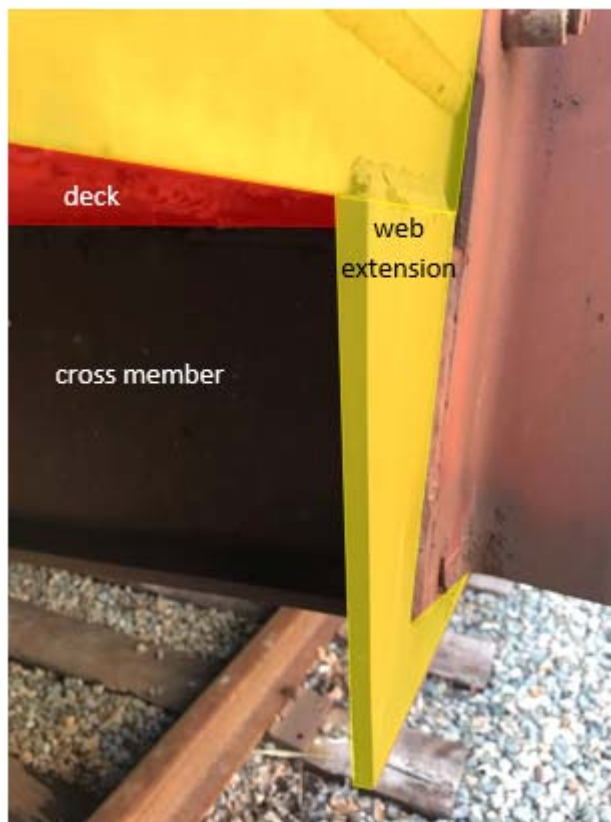


GRNBR0001890.



GRNBR0001896.

		 <p>side beam</p> <p>web extension</p> <p>GRNBR0001894.</p>
[1i]	said first web extension extending predominantly downwardly of said deck, and said first web extension being mounted to said first end of said first cross-member;	Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, the first web extension of Southern Woodchip extends predominantly downwardly of said deck, and said first web extension is mounted to said first end of said first cross-member:

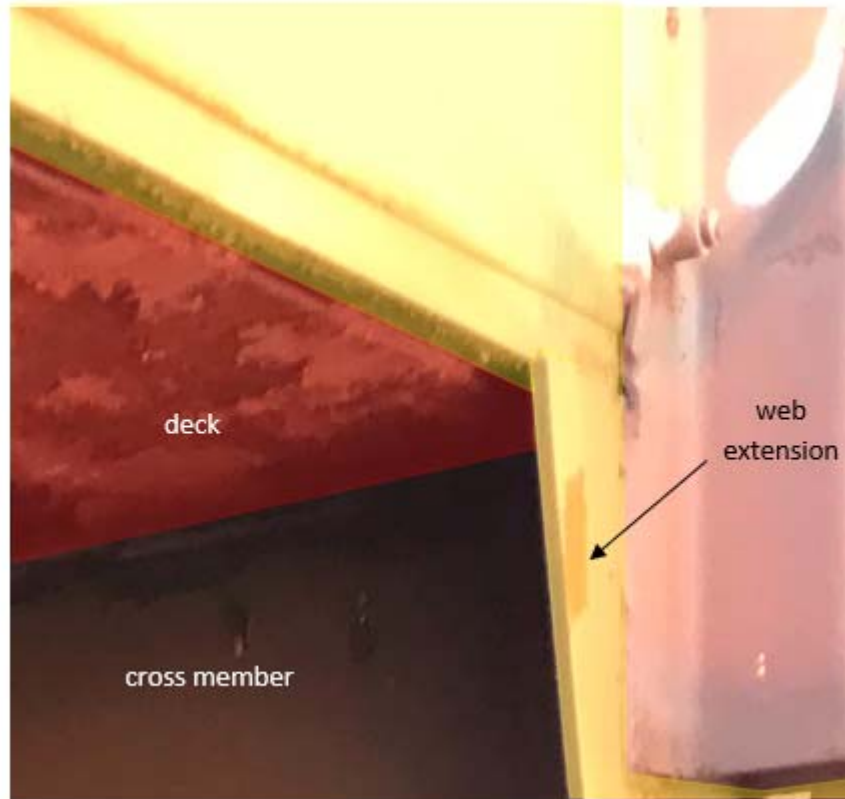


GRNBR0001894.

Additionally, or in the alternative, Southern Woodchip discloses and/or renders obvious this limitation, as set forth below, for example:



GRNBR0001894.

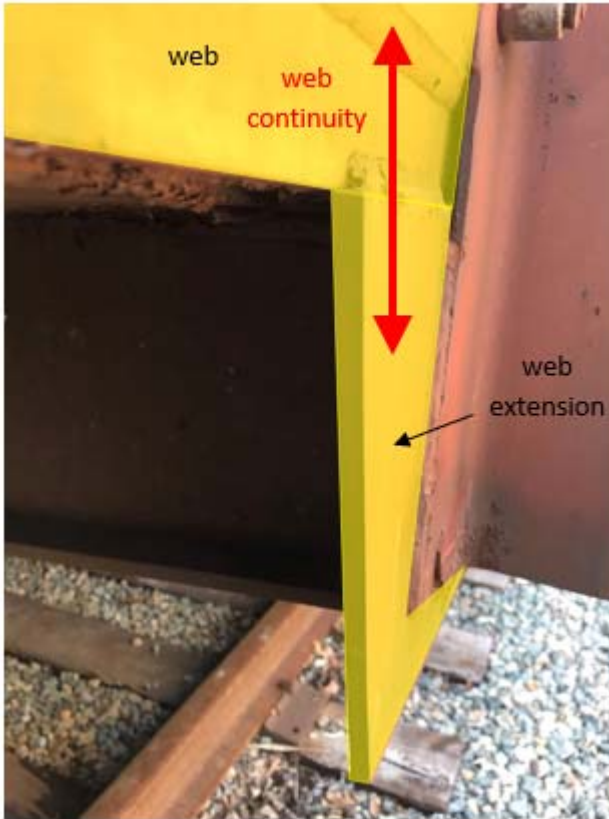


GRNBR0001886.

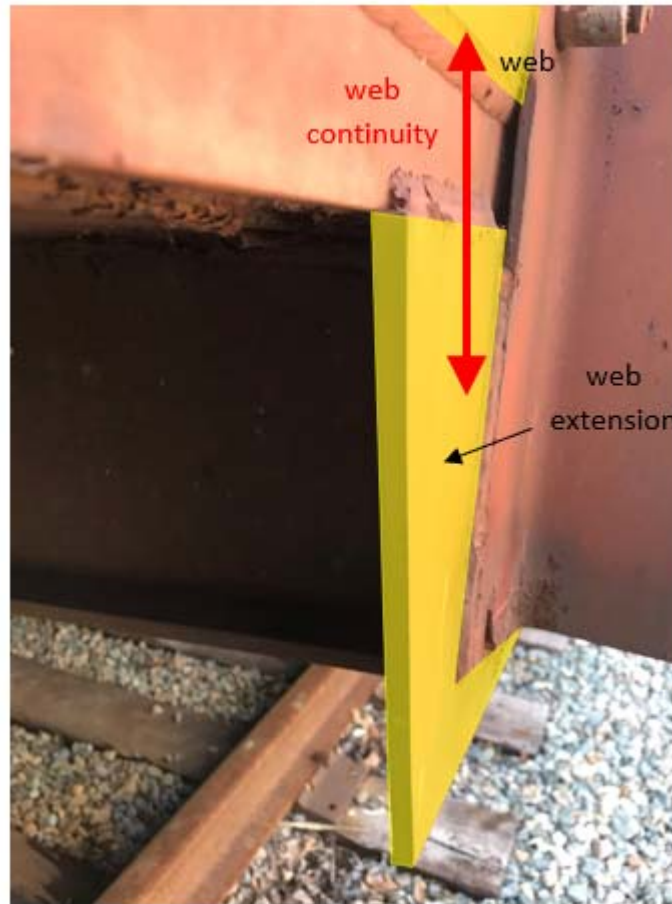
Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Southern Woodchip must be found to meet this limitation for purposes of invalidity.

To the extent that Southern Woodchip does not disclose "said first web extension extending predominantly downwardly of said deck, and said first web extension being mounted to said first end of said first cross-member," it would have been obvious to a PHOSITA to combine and/or modify Southern Woodchip with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or



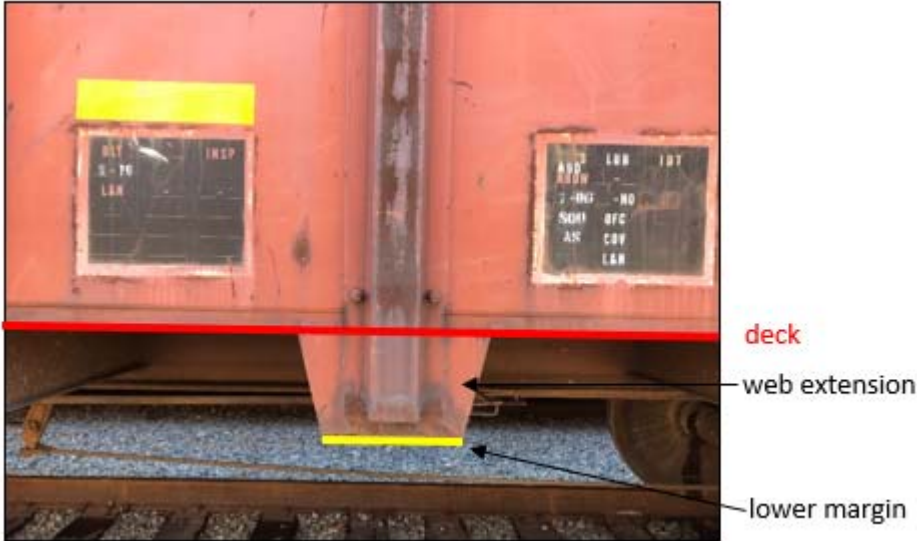
		modification including the claimed “said first web extension extending predominantly downwardly of said deck, and said first web extension being mounted to said first end of said first cross-member.”
[1j]	there being web continuity between said first web extension and said upstanding web;	<p>To the extent “web continuity” is not found indefinite as used in the ‘125 patent, Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, there is web continuity between said first web extension and said upstanding web of Southern Woodchip:</p>  <p>GRNBR0001894.</p>

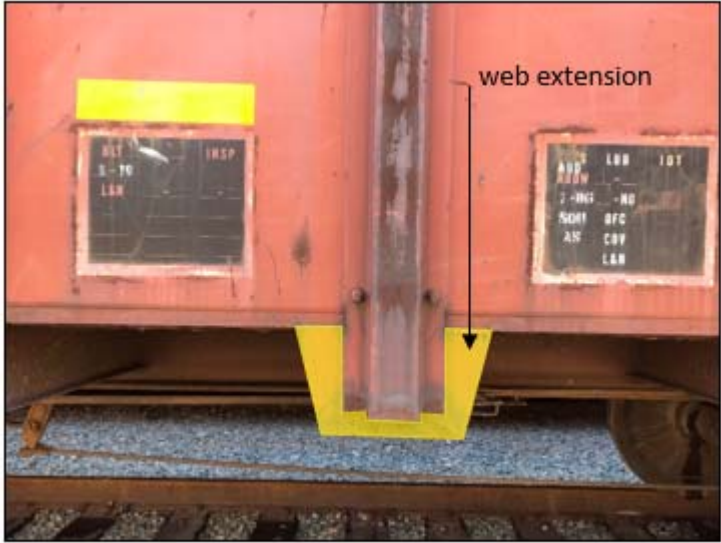

Additionally, or in the alternative, Southern Woodchip discloses and/or renders obvious this limitation, as set forth below, for example:

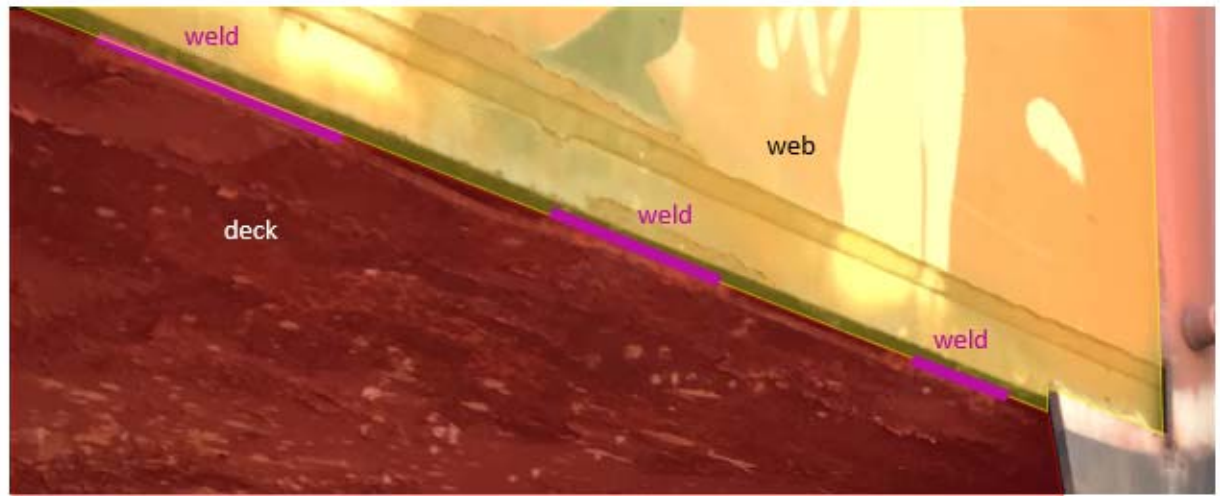


GRNBR0001894.

Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Southern Woodchip must be found to meet this limitation for purposes of invalidity.

		<p>To the extent that Southern Woodchip does not disclose “web continuity between said first web extension and said upstanding web,” it would have been obvious to a PHOSITA to combine and/or modify Southern Woodchip with one or more other prior art references as set forth in Greenbrier’s Cover Materials to these invalidity contentions, such combination and/or modification including the claimed “web continuity between said first web extension and said upstanding web.”</p>
[1k]	said first web extension having a lower margin downwardly distant from said deck;	<p>Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, the first web extension of Southern Woodchip has a lower margin downwardly distant from said deck:</p>  <p>GRNBR0001890.</p> <p>Greenbrier’s invalidity contentions are made in view of NSC’s infringement contentions and in view of NSC’s apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Southern Woodchip must be found to meet this limitation for purposes of invalidity.</p>

[11]	said first web extension being narrower at said lower margin than nearer to said deck, said first web extension having broadening wings to either side of said first end of said first cross-member.	<p>Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, the first web extension of Southern Woodchip is narrower at said lower margin than nearer to said deck, said first web extension having broadening wings to either side of said first end of said first cross-member:</p> <div>  </div> <div>  </div> <p>GRNBR0001890. GRNBR0001898.</p> <p>Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Southern Woodchip must be found to meet this limitation for purposes of invalidity.</p>
11.	The rail road gondola car of claim 1 wherein:	As set forth above, Southern Woodchip discloses and/or renders obvious each and every limitation of claim 1.
[11a]	said web of said first side beam is welded directly to said deck,	Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, the web of the first side beam of Southern Woodchip is welded directly to said deck:

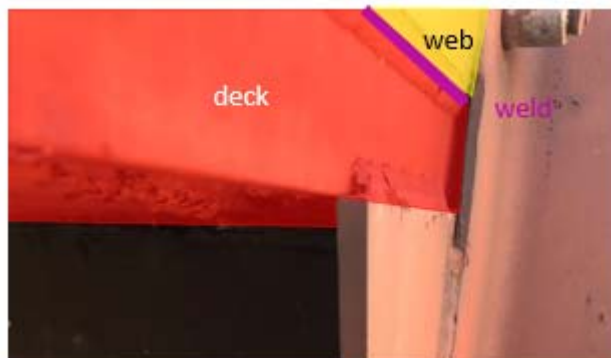


GRNBR0001885.  
GRNBR0001879.

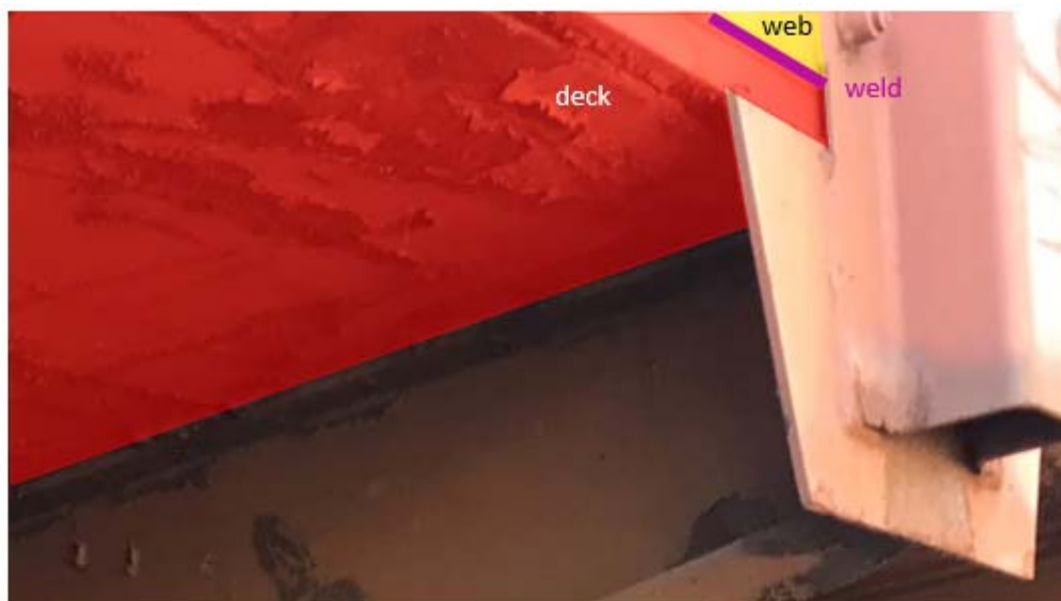


On information and belief, the web of the first side beam of Southern Woodchip is welded directly to said deck in one or more other locations.


Additionally, or in the alternative, Southern Woodchip discloses and/or renders obvious this limitation, as set forth below, for example:




GRNBR0001894.




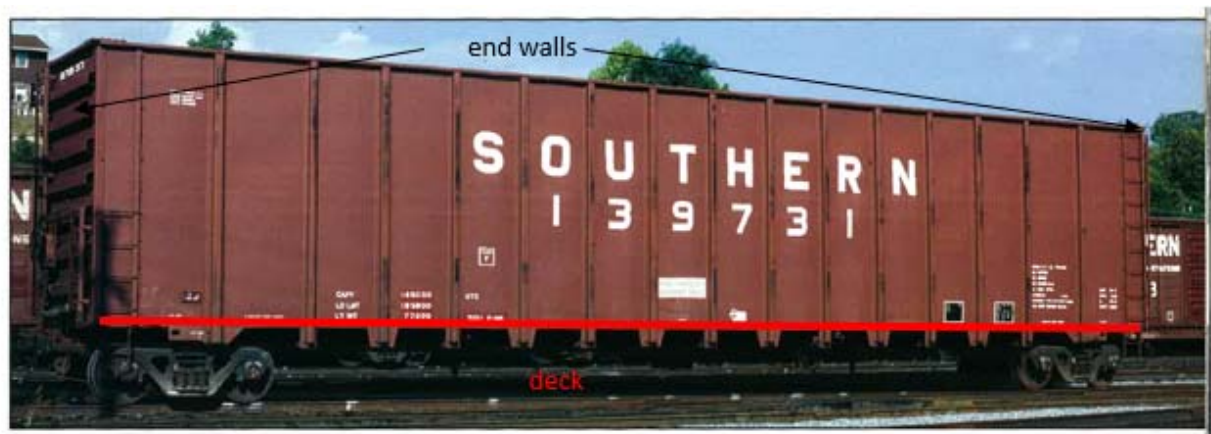
GRNBR0001885.

		<p>Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then, on information and belief, Southern Woodchip must be found to meet this limitation for purposes of invalidity.</p> <p>To the extent that Southern Woodchip does not disclose a "web of said first side beam ... welded directly to said deck," it would have been obvious to a PHOSITA to combine and/or modify Southern Woodchip with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including the claimed "web of said first side beam ... welded directly to said deck."</p>
[11b]	and said car is free of a side sill.	<p>To the extent "side sill" is not found indefinite as used in the '125 patent, Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, Southern Woodchip is free of a side sill:</p>  <p>GRNBR0001881.</p>



		Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Southern Woodchip must be found to meet this limitation for purposes of invalidity.
15.	The rail road gondola car of claim 1 wherein:	As set forth above, Southern Woodchip discloses and/or renders obvious each and every limitation of claim 1.
[15a]	said car has first and second end walls, said lading containment receptacle having a length defined between said end walls;	<p>Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, Southern Woodchip has first and second end walls, said lading containment receptacle having a length defined between said end walls:</p>  <p>GRNBR0002266.</p>

[15b]	said lading containment receptacle has a width defined between said first and second side beams;	<p>Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, Southern Woodchip has a width defined between said first and second side beams:</p>  <p>GRNBR0002266.</p>
[15c]	said deck extends from said first end wall to said second end wall, and from said first side wall to said second side wall;	<p>Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, the deck of Southern Woodchip extends from said first end wall to said second end wall, and from said first side wall to said second side wall:</p>



GRNBR0001952.

Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Southern Woodchip must be found to meet this limitation for purposes of invalidity.

To the extent that Southern Woodchip does not disclose a "deck extend[ing] from said first end wall to said second end wall, and from said first side wall to said second side wall," it would have been obvious to a PHOSITA to combine and/or modify Southern Woodchip with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including the claimed "deck extend[ing] from said first end wall to said second end wall, and from said first side wall to said second side wall."

[15d] said web of said first side wall is welded directly to said deck;

Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, the web of the first side wall of Southern Woodchip is welded directly to said deck:

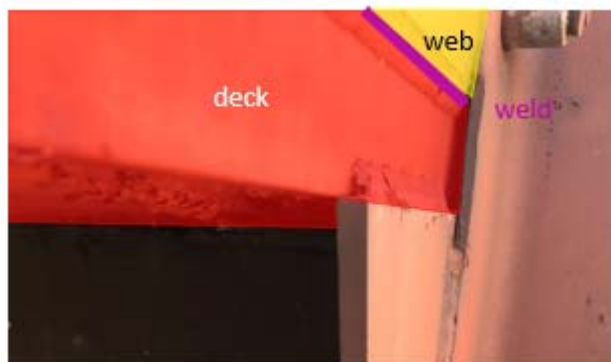


GRNBR0001885.  
GRNBR0001879.

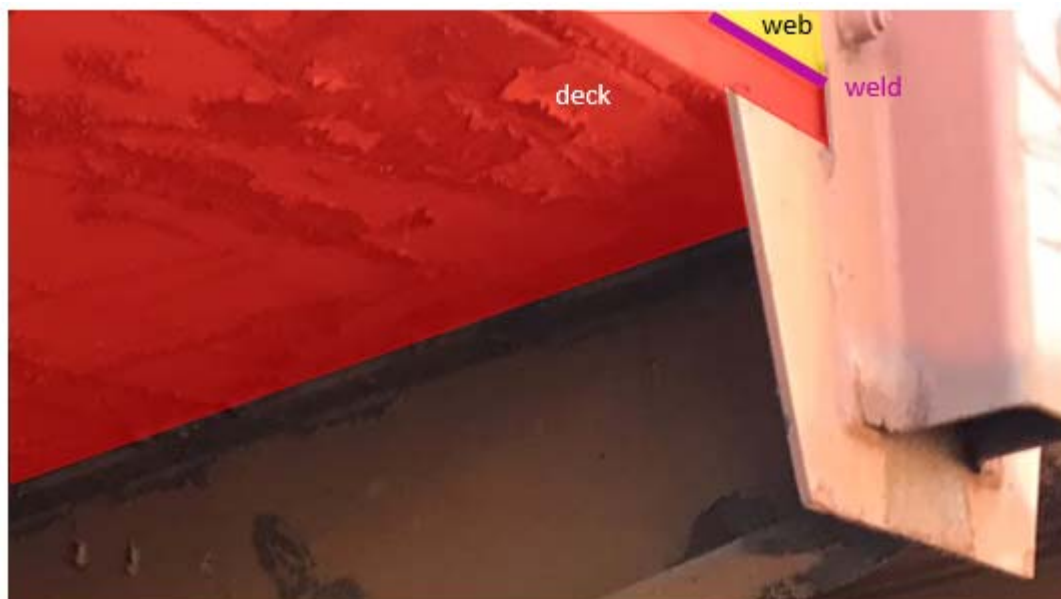
On information and belief, the web of the first side beam of Southern Woodchip is welded directly to said deck in one or more other locations.




Additionally, or in the alternative, Southern Woodchip discloses and/or renders obvious this limitation, as set forth below, for example:



GRNBR0001894.

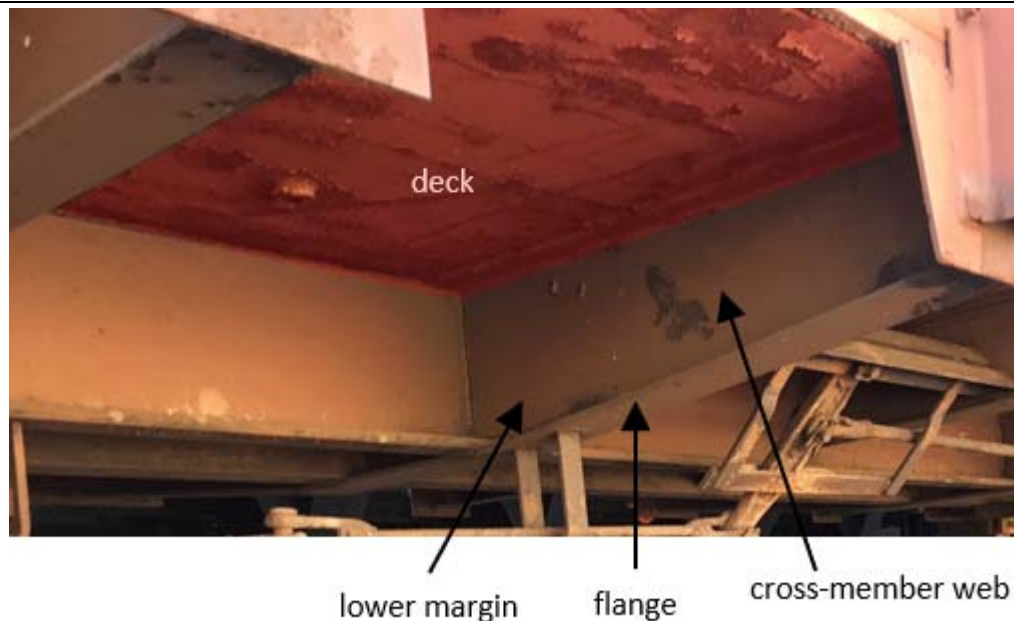


GRNBR0001885.

		<p>Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Southern Woodchip must be found to meet this limitation for purposes of invalidity.</p> <p>To the extent that Southern Woodchip does not disclose "said web of said first side wall ... welded directly to said deck," it would have been obvious to a PHOSITA to combine and/or modify Southern Woodchip with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including the claimed "said web of said first side wall ... welded directly to said deck."</p>
[15e]	said first cross-member has a laterally running web, said laterally running web having an upper margin welded directly to said deck; said laterally running web extends predominantly downwardly of, said deck;	<p>Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, Southern Woodchip has a laterally running web, said laterally running web having an upper margin welded directly to said deck; and said laterally running web extends predominantly downwardly of, said deck.</p>  <p>upper margin</p> <p>cross-member web</p>

		<p>GRNBR0001885.</p> <p>Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Southern Woodchip must be found to meet this limitation for purposes of invalidity.</p> <p>To the extent that Southern Woodchip does not disclose a "first cross-member ha[ving] a laterally running web, said laterally running web having an upper margin welded directly to said deck; said laterally running web extend[ing] predominantly downwardly of, said deck," it would have been obvious to a PHOSITA to combine and/or modify Southern Woodchip with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including the claimed "first cross-member ha[ving] a laterally running web, said laterally running web having an upper margin welded directly to said deck; said laterally running web extend[ing] predominantly downwardly of, said deck."</p>
[15f]	said laterally running web has a lower margin distant from said deck; said first cross-member has a laterally running flange mounted to said lower margin of said laterally running web, said flange being distant from said deck;	Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, the laterally running web of the first cross-member of Southern Woodchip has a lower margin distant from said deck; said first cross-member has a laterally running flange mounted to said lower margin of said laterally running web, said flange being distant from said deck:






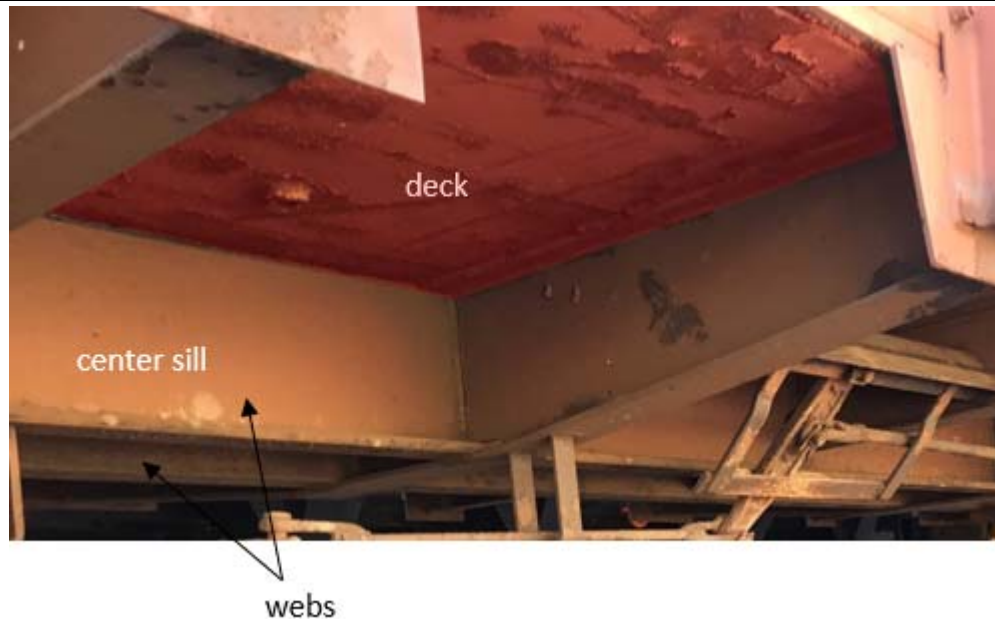
GRNBR0001885.

Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Southern Woodchip must be found to meet this limitation for purposes of invalidity.

To the extent that Southern Woodchip does not disclose "said laterally running web ha[ving] a lower margin distant from said deck; said first cross-member ha[ving] a laterally running flange mounted to said lower margin of said laterally running web, said flange being distant from said deck," it would have been obvious to a PHOSITA to combine and/or modify Southern Woodchip with one or more other prior art references, such combination and/or modification including the claimed "said laterally running web ha[ving] a lower margin distant from said deck; said first cross-member ha[ving] a laterally running flange mounted to said lower margin of said laterally running web, said flange being distant from said deck."

[15g]	and at least half of said deck is formed from a single monolithic piece of steel sheet;	<p>Southern Woodchip discloses and/or renders obvious this limitation. On information and belief, the deck of Southern Woodchip is formed from a single monolithic piece of steel sheet.</p> <p>Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then, on information and belief, Southern Woodchip must be found to meet this limitation for purposes of invalidity.</p> <p>To the extent that Southern Woodchip does not disclose "at least half of said deck is formed from a single monolithic piece of steel sheet," it would have been obvious to a PHOSITA to combine and/or modify Southern Woodchip with one or more other prior art references, such combination and/or modification including the claimed "at least half of said deck is formed from a single monolithic piece of steel sheet."</p>
[15h]	whereby said steel sheet defines both a bottom flange of said first side beam and a top flange of said first cross-member.	<p>Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, on information and belief, the deck of Southern Woodchip is welded directly to the web of the side wall and defines the bottom flange of at least one of said side beams. <i>See</i> Claim 15[d]. As also set forth above, for example, the deck of Southern Woodchip is welded directly to the web of the at least one cross-member and defines the top flange of the cross-member. <i>See</i> Claim 15[e].</p> <p>Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then, on information and belief, Southern Woodchip must be found to meet this limitation for purposes of invalidity.</p> <p>To the extent that Southern Woodchip does not disclose "said steel sheet defines both a bottom flange of said first side beam and a top flange of said first cross-member," it would have been obvious to a PHOSITA to combine and/or modify Southern Woodchip with one or more other prior art references, such combination and/or modification including the claimed "said steel sheet defines both a bottom flange of said first side beam and a top flange of said first cross-member."</p>

16.	The rail road gondola car of claim 15 wherein:	<p>As set forth above, on information and belief, Southern Woodchip discloses and/or renders obvious each and every limitation of claim 15.</p> <p>To the extent that Southern Woodchip does not disclose each and every limitation of claim 15, it would have been obvious to a PHOSITA to combine and/or modify Southern Woodchip with one or more other prior art references, such combination and/or modification including each and every limitation of claim 15.</p>
[16a]	said rail road gondola car has a center sill;	<p>Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, Southern Woodchip has a center sill.</p>  <p>GRNBR0001885.</p>
[16b]	said center sill has first and second webs extending downwardly of said deck, said first and second webs of said center sill being laterally spaced apart from each other and running longitudinally;	<p>Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, the center sill of Southern Woodchip has first and second webs extending downwardly of said deck, said first and second webs of said center sill being laterally spaced apart from each other and running longitudinally:</p>



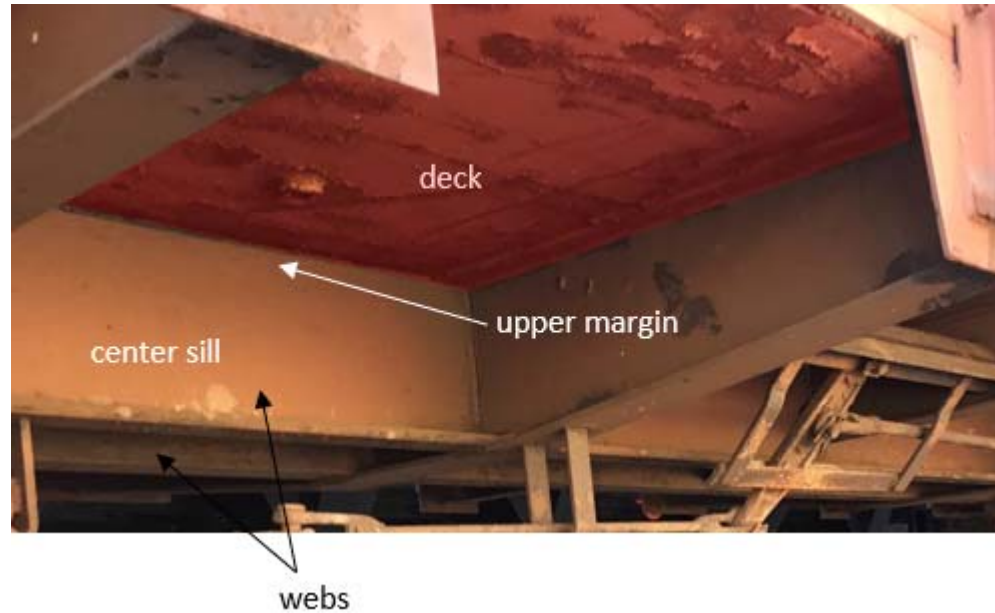
GRNBR0001885.

Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Southern Woodchip must be found to meet this limitation for purposes of invalidity.

To the extent that Southern Woodchip does not disclose a "center sill ha[ving] first and second webs extending downwardly of said deck, said first and second webs of said center sill being laterally spaced apart from each other and running longitudinally," it would have been obvious to a PHOSITA to combine and/or modify Southern Woodchip with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including the claimed "center sill ha[ving] first and second webs extending downwardly of said deck, said first and second webs of said center sill being laterally spaced apart from each other and running longitudinally."

[16c] and said first and second webs of said center sill each having an upper margin welded directly to said monolithic piece of steel sheet,

Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, on information and belief, the first and second webs of said center sill of Southern Woodchip each have an upper margin welded directly to said monolithic piece of steel sheet:




GRNBR0001885.


Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then, on information and belief, Southern Woodchip must be found to meet this limitation for purposes of invalidity.

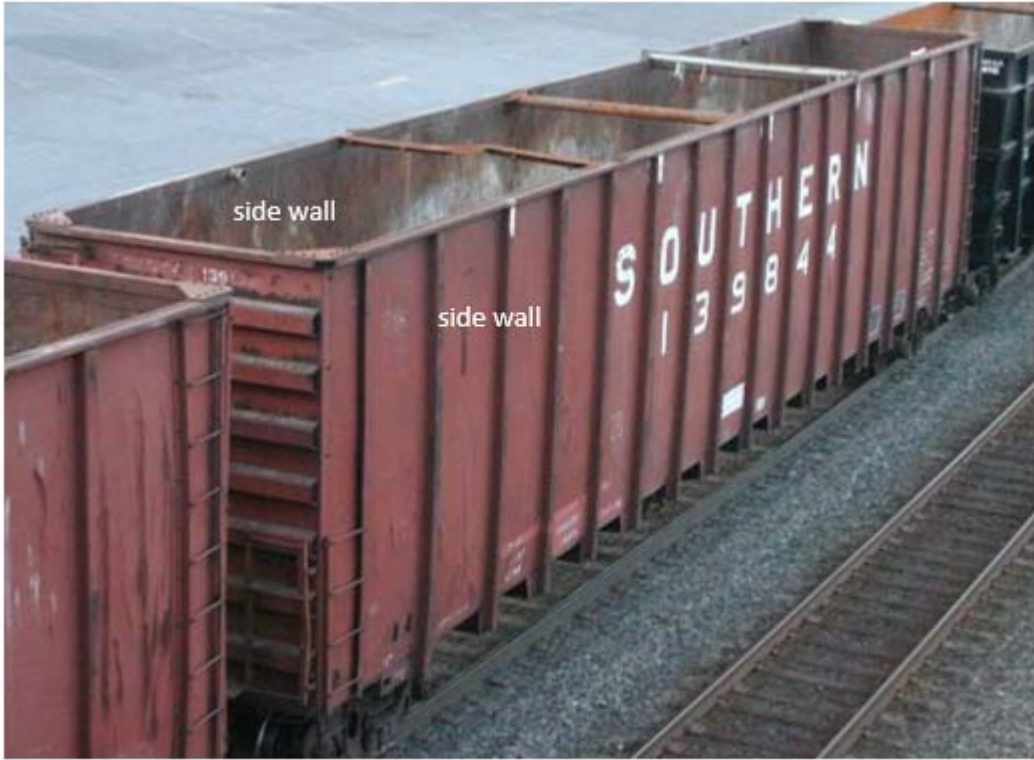
To the extent that Southern Woodchip does not disclose "said first and second webs of said center sill each having an upper margin welded directly to said monolithic piece of steel sheet," it would have been obvious to a PHOSITA to combine and/or modify Southern Woodchip with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including the claimed "said first and second webs of said center sill each having an upper margin welded directly to said monolithic piece of steel sheet."




[16d]	whereby said steel sheet defines a top cover plate of said center sill.	<p>Southern Woodchip discloses and/or renders obvious this limitation. As set forth above, for example, on information and belief, the deck of Southern Woodchip is welded directly to the webs of the center sill and defines a top cover plate of said center sill. <i>See</i> Claim 16[c].</p> <p>Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then, on information and belief, Southern Woodchip must be found to meet this limitation for purposes of invalidity.</p> <p>To the extent that Southern Woodchip does not disclose "said steel sheet defin[ing] a top cover plate of said center sill," it would have been obvious to a PHOSITA to combine and/or modify Southern Woodchip with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including the claimed "said steel sheet defin[ing] a top cover plate of said center sill."</p>
18.	A rail road gondola car, said rail road gondola car comprising:	<p>To the extent the preamble is a limitation, Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, Southern Woodchip is a railroad gondola car:</p>  <p>GRNBR0001952.</p>



[18a]	a car body carried by rail road car trucks for rolling motion in a longitudinal direction along rail road car tracks;	<p>Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, Southern Woodchip has a car body carried by rail road car trucks for rolling motion in a longitudinal direction along rail road car tracks:</p>  <p style="text-align: center;">trucks</p> <p>GRNBR0001952.</p>
[18b]	a first side wall and a second side wall spaced apart cross-wise;	<p>Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, Southern Woodchip has a first side wall and a second side wall spaced apart cross-wise:</p>

		 <p>GRNBR0002266.</p>
[18c]	a first end wall and a second end wall spaced apart in the longitudinal direction;	Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, Southern Woodchip has a first end wall and a second end wall spaced apart in the longitudinal direction:

		 <p>GRNBR0002266.</p>
[18d]	a substantially flat deck;	Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, on information and belief, Southern Woodchip has a substantially flat deck:




GRNBR0001952.




GRNBR0001885.

Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then, on information and belief, Southern Woodchip must be found to meet this limitation for purposes of invalidity.



		To the extent that Southern Woodchip does not disclose “a substantially flat deck,” it would have been obvious to a PHOSITA to combine and/or modify Southern Woodchip with one or more other prior art references as set forth in Greenbrier’s Cover Materials to these invalidity contentions, such combination and/or modification including the claimed “substantially flat deck.”
[18e]	an array of cross-members, said array including a first cross-member;	<p>Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, Southern Woodchip has an array of cross-members, said array including a first cross-member:</p>  <p style="text-align: center;">cross-members</p> <p>GRNBR0001885.</p> <p>Greenbrier’s invalidity contentions are made in view of NSC’s infringement contentions and in view of NSC’s apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Southern Woodchip must be found to meet this limitation for purposes of invalidity.</p>

[18f]	said deck having a first end at which said first end wall is mounted, and a second end at which said second end wall is mounted;	<p>Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, the deck of Southern Woodchip has a first end at which said first end wall is mounted, and a second end at which said second end wall is mounted:</p>  <p>GRNBR0002266.</p> <p>Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Southern Woodchip must be found to meet this limitation for purposes of invalidity.</p>
[18g]	said deck having a first laterally outboard margin and	<p>Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, the deck of Southern Woodchip has a first laterally outboard margin and a second laterally</p>



a second laterally outboard margin; said first side wall has a first side wall web running along said first laterally outboard margin, said first side wall web being directly connected to said deck;

outboard margin; said first side wall has a first side wall web running along said first laterally outboard margin:

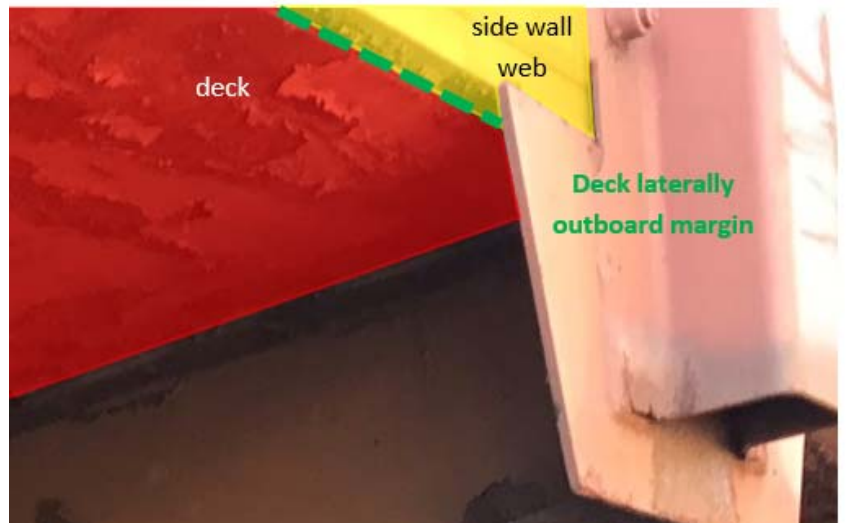


GRNBR0001894.

The structure shown above is the same on the other side of the gondola car.

On information and belief, the side wall web of Southern Woodchip is directly connected to said deck in one or more other locations.

Additionally, or in the alternative, Southern Woodchip discloses and/or renders obvious this limitation, as set forth below, for example:




GRNBR0001885.

GRNBR0001894.

The structure shown above is the same on the other side of the gondola car.

Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then, on information and belief, Southern Woodchip must be found to meet this limitation for purposes of invalidity.


		<p>To the extent that Southern Woodchip does not disclose a “deck having a first laterally outboard margin and a second laterally outboard margin; said first side wall ha[ving] a first side wall web running along said first laterally outboard margin, said first side wall web being directly connected to said deck,” it would have been obvious to a PHOSITA to combine and/or modify Southern Woodchip with one or more other prior art references as set forth in Greenbrier’s Cover Materials to these invalidity contentions, such combination and/or modification including the claimed “deck having a first laterally outboard margin and a second laterally outboard margin; said first side wall ha[ving] a first side wall web running along said first laterally outboard margin, said first side wall web being directly connected to said deck.”</p>
[18h]	<p>said second side wall has a second side wall web running along said second laterally outboard margin, said second side wall web being directly connected to said deck</p>	<p>Southern Woodchip discloses and/or renders obvious this limitation. The structure shown above for claim element 18[g] is the same on the other side of Southern Woodchip.</p> <p>Greenbrier’s invalidity contentions are made in view of NSC’s infringement contentions and in view of NSC’s apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Southern Woodchip must be found to meet this limitation for purposes of invalidity.</p> <p>To the extent that Southern Woodchip does not disclose “said second side wall ha[ving] a second side wall web running along said second laterally outboard margin, said second side wall web being directly connected to said deck,” it would have been obvious to a PHOSITA to combine and/or modify Southern Woodchip with one or more other prior art references as set forth in Greenbrier’s Cover Materials to these invalidity contentions, such combination and/or modification including the claimed “said second side wall ha[ving] a second side wall web running along said second laterally outboard margin, said second side wall web being directly connected to said deck.”</p>
[18i]	<p>whereby said deck defines a bottom flange of said first and second side walls;</p>	<p>Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth above, on information and belief, the deck of Southern Woodchip is welded directly to the webs of the side walls and defines a bottom flange of said first and second side walls. <i>See</i> Claim 18[g]-[h]. <i>See also</i> Claim 15[e]-[f].</p>

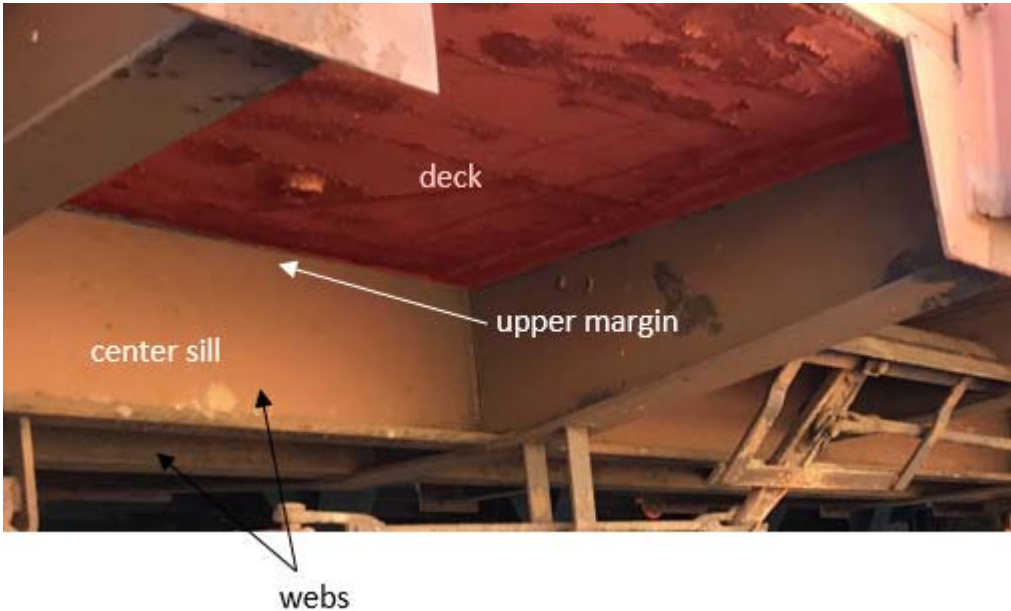
		<p>Greenbrier’s invalidity contentions are made in view of NSC’s infringement contentions and in view of NSC’s apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then, on information and belief, Southern Woodchip must be found to meet this limitation for purposes of invalidity.</p> <p>To the extent that Southern Woodchip does not disclose “said deck defin[ing] a bottom flange of said first and second side walls,” it would have been obvious to a PHOSITA to combine and/or modify Southern Woodchip with one or more other prior art references as set forth in Greenbrier’s Cover Materials to these invalidity contentions, such combination and/or modification including the claimed “said deck defin[ing] a bottom flange of said first and second side walls.”</p>
[18j]	said first cross-member having a laterally running web, said laterally running web being directly connected to said deck, said laterally running web extending downwardly of said deck,	<p>Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, the first cross-member of Southern Woodchip has a laterally running web, said laterally running web being directly connected to said deck, said laterally running web extending downwardly of said deck:</p>  <p>GRNBR0001885.</p>

		<p>Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Southern Woodchip must be found to meet this limitation for purposes of invalidity.</p> <p>To the extent that Southern Woodchip does not disclose "said first cross-member having a laterally running web, said laterally running web being directly connected to said deck, said laterally running web extending downwardly of said deck," it would have been obvious to a PHOSITA to combine and/or modify Southern Woodchip with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including the claimed "said first cross-member having a laterally running web, said laterally running web being directly connected to said deck, said laterally running web extending downwardly of said deck."</p>
[18k]	whereby said deck defines an upper flange of said first cross-member;	<p>Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth above, the deck of Southern Woodchip is welded directly to the web of the at least one cross-member and defines an upper flange of said cross-member. <i>See</i> Claim 18[j].</p> <p>Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then Southern Woodchip must be found to meet this limitation for purposes of invalidity.</p> <p>To the extent that Southern Woodchip does not disclose "said deck defin[ing] an upper flange of said first cross-member," it would have been obvious to a PHOSITA to combine and/or modify Southern Woodchip with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including the claimed "said deck defin[ing] an upper flange of said first cross-member."</p>
[18l]	and at least half of said deck is formed from a single	<p>Southern Woodchip discloses and/or renders obvious this limitation. On information and belief, at least half of the deck of Southern Woodchip is formed from a single monolithic piece of steel sheet.</p>

	monolithic piece of steel sheet.	<p>Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then, on information and belief, Southern Woodchip must be found to meet this limitation for purposes of invalidity.</p> <p>To the extent that Southern Woodchip does not disclose "at least half of said deck is formed from a single monolithic piece of steel sheet," it would have been obvious to a PHOSITA to combine and/or modify Southern Woodchip with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including the claimed "at least half of said deck is formed from a single monolithic piece of steel sheet."</p>
19.	The rail road gondola car of claim 18 wherein	<p>As set forth above, on information and belief, Southern Woodchip discloses and/or renders obvious each and every limitation of claim 18.</p> <p>To the extent that Southern Woodchip does not disclose each and every limitation of claim 18, it would have been obvious to a PHOSITA to combine and/or modify Southern Woodchip with one or more other prior art references, such combination and/or modification including each and every limitation of claim 18.</p>
[19a]	said car body includes a center sill, said center sill having first and second laterally spaced apart longitudinally running center sill webs,	Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, Southern Woodchip body includes a center sill, said center sill having first and second laterally spaced apart longitudinally running center sill webs:



		 <p>deck</p> <p>center sill</p> <p>webs</p> <p>GRNBR0001885.</p>
[19b]	said first and second center sill webs each having an upper margin welded directly to said deck,	Southern Woodchip discloses and/or renders obvious this limitation. For example, as set forth below, said first and second center sill webs of Southern Woodchip each have an upper margin welded directly to said deck:

		 <p>GRNBR0001885.</p> <p>Greenbrier's invalidity contentions are made in view of NSC's infringement contentions and in view of NSC's apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, the Southern Woodchip must be found to meet this limitation for purposes of invalidity.</p> <p>To the extent that Southern Woodchip does not disclose "said first and second center sill webs each having an upper margin welded directly to said deck," it would have been obvious to a PHOSITA to combine and/or modify Southern Woodchip with one or more other prior art references as set forth in Greenbrier's Cover Materials to these invalidity contentions, such combination and/or modification including the claimed "said first and second center sill webs each having an upper margin welded directly to said deck."</p>
[19c]	whereby said deck defines a top cover plate of said center sill.	Southern Woodchip discloses and/or renders obvious this limitation. As set forth above, for example, on information and belief, the deck of Southern Woodchip is welded directly to the webs of the center sill and defines a top cover plate of said center sill. <i>See</i> Claim 19[b].

		<p>Greenbrier’s invalidity contentions are made in view of NSC’s infringement contentions and in view of NSC’s apparent claim construction positions. Greenbrier maintains that the Accused Products do not infringe. However, if NSC maintains that the Accused Products infringe, and if the Accused Products are found to infringe, then, on information and belief, Southern Woodchip must be found to meet this limitation for purposes of invalidity.</p> <p>To the extent that Southern Woodchip does not disclose a “deck defin[ing] a top cover plate of said center sill,” it would have been obvious to a PHOSITA to combine and/or modify Southern Woodchip with one or more other prior art references as set forth in Greenbrier’s Cover Materials to these invalidity contentions, such combination and/or modification including the claimed “deck defin[ing] a top cover plate of said center sill.”</p>
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